



Rural Transformation in the Age of Globalization: Small Farms in Turkey 1980-2004

Baris Karapinar

PhD Dissertation
London School of Economics and Political Science

UMI Number: U615898

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI U615898

Published by ProQuest LLC 2014. Copyright in the Dissertation held by the Author.
Microform Edition © ProQuest LLC.

All rights reserved. This work is protected against
unauthorized copying under Title 17, United States Code.



ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

THESES

F

8807

1135015

ABSTRACT

The debate on rural transformation dates back to the school of neo-classical political economy. Its modern version has focused on the role of agriculture in economic development in the 1960s and 1970s, and has then moved on to local livelihoods and micro-economics in the 1980s. Recently, a new debate has emerged between the 'neo-populists' and the 'agro-pessimists' on the role of small-scale farms in economic development and poverty alleviation. This thesis develops a framework, which helps analysis of the process of rural transformation in the age of globalization. Testing the hypothesis in Turkey illustrates a common dilemma faced by many developing countries where the role of agriculture in economic development has been diminishing without leading to a substantial movement of labour out of agriculture. Since this trend is accompanied by a stagnant agricultural economy failing to integrate into global markets, millions of small farmers have been left out of the process of economic development over the last 25 years.

This thesis analyzes longitudinal village studies from three different regions of Turkey. The first case exemplifies the damaging impact of the trade distorting policies of developed countries on small-scale cotton producers in developing countries. The second case illustrates the crucial role that non-agricultural activities play in rural economies, especially in unfavourable agro-ecologies. The third shows that inequality arising from social and political factors hinders the efficient allocation of resources, constituting a big obstacle for rural development. Hence, combining assessment of the processes of agricultural and labour transition at the country level with thematic case studies, the thesis argues that the overall state of small-scale agriculture has generally been pessimistic over the last 25 years. Nevertheless, if facilitated by a new institutional framework, such as the new social democracy, designed to take advantage of new opportunities arising from globalization, a realistic policy approach would provide an optimistic prospect for future progress in rural transformation.

ACKNOWLEDGMENTS

Since the day I started my PhD, the earth has gone around the sun four times. If you ask the earth, as the poet Nazım Hikmet Ran once wrote, it would say ‘doesn’t deserve mention, such a microscopic amount of time’. If you ask me, I say ‘four years of my life!’ Since that day, I could have travelled around the world on my motorbike. Passing through dozens of countries, hundreds of towns and villages, enjoying different cultures, learning new languages would have been an amazingly enriching experience. Instead, I have spent my years in a PhD room without daylight, listening to the harmonious sound of large computer servers; or in the LSE’s state of the art library where it takes 27 minutes to get from one floor to the second on its spectacularly designed spiral stairs. So, what is the point of doing a PhD? My answer to this is about expanding one’s ‘vision’. The entire experience has improved the way I think academically, question rigorously, search for information, explanation and causation. More importantly, it has helped me expand my vision of international development.

LSE is one of the few distinctive institutions where one can develop a truly global vision. Therefore, I shall begin with thanking those who collectively contribute to the richness and the rigour of academic life at LSE. I wish to express my gratitude to my main supervisor John Harriss who has always enlightened me with his thorough and stimulating advice. In our meetings (less than ten times in four years), he always inspired me with the depth of his knowledge and the sharpness of his memory. I am particularly grateful to his continued commitment to my work after his departure from LSE. I also wish to thank my second supervisor Tim Dyson for his encouragement and confidence on my research, and for inspiring me with his enormous dedication to his own field, demography. I would like to thank Stephanie Davies, manager of Development Studies Institute, for her kindness from the first day I stepped into her office. A person with a rare combination of extreme administrative efficiency and inexhaustible charm can change your life! I would also like to thank Oya Köymen who introduced me to the subject, and Şemsa Özar who kindly helped me get an official approval to do my fieldwork in Turkey. I would also like to thank the World Trade Institute for providing me an excellent work environment for completing my thesis in my last year. I wish to thank Bernard Simon who revised the manuscript in an enormously efficient way. I should also thank my PhD examiners, David Seddon and Steve Wiggins, who made my viva a surprisingly pleasant experience. As for the material presented in this thesis, I am solely responsible. Therefore, the usual disclaimer applies.

A researcher should always pay respect to the subject (s)he studies. I am most grateful to the inhabitants of the villages that I studied, Sakal (Sakaltutan), Sinan (Sinanköy) and Tuz (Tuzburgazı), for their extreme kindness and hospitality. I also wish to express my gratitude to Nükhet Sirman, Adnan Akçay and other scholars whose work I relied on extensively and I would like to commemorate Paul Stirling who generously left behind him an extensive archive for young researchers like myself to follow up.

If you are an ‘overseas’ student, you need to arrange your finances to live in one of the most expensive cities on the planet! The field research upon which my thesis is based was fully funded by a grant from the MEAwards Program in Population and the Social Sciences, the Population Council, WANA Regional Office in Cairo. I wish to thank the Population Council and its helpful staff for their generous support. I also would like to thank LSE for the student scholarship awards that I have received for three consecutive years.

Finally, I wish to thank my parents for their support especially in the early phase of my studies. Most importantly, I owe my deepest gratitude to my beloved wife Dilek Kayhan without whose support this thesis would not have existed. I am truly grateful for her dedicated support and encouragement from the first day of my studies till the very end. She is not only my best friend and wife but also my wise mentor and advisor. Thus, I dedicate this thesis to her.

TABLE OF CONTENTS

Chapter I - Rural Transformation: Concepts, Questions and Methodology	8
1.1 TRANSFORMATION FROM AGRICULTURE.....	10
1.2 TRANSFORMATION WITHIN AGRICULTURE.....	14
1.2.1 <i>Yields and cropping patterns</i>	16
1.2.2 <i>Limited Globalization in Agriculture</i>	19
1.2.3 <i>WTO Negotiations: One Way Street?</i>	22
1.3 SMALL-FARM DIFFERENTIATION	24
1.4 AN HISTORICAL ACCOUNT OF RURAL TRANSFORMATION	25
1.4.1 <i>The role of agriculture</i>	26
1.4.2 <i>The role of small farming</i>	29
1.4.3 <i>The populist vs. the socialist orthodoxy</i>	29
1.4.4 <i>The 1980s: micro is beautiful</i>	32
1.4.5 <i>The 2000s: agro pessimism vs. neo-populism</i>	33
1.5 RESEARCH THEMES AND QUESTIONS.....	35
1.5.1 <i>Hypotheses</i>	36
1.5.2 <i>The position of Turkey</i>	39
1.5.3 <i>Turkish debate</i>	40
1.5.4 <i>Methodology: longitudinal approach</i>	45
First case: Tuz	47
Second case: Sakal	48
Third case: Sinan.....	50
Variable matrix	51
1.6 RESEARCH RELEVANCE	54
Chapter II - Rural Transformation in Turkey: Labour Trap in Stagnant Agriculture	61
2.1 TRANSFORMATION FROM AGRICULTURE.....	63
2.1.1 <i>Low absorption capacity in non-agricultural growth</i>	66
2.2 TRANSFORMATION WITHIN AGRICULTURE	70
2.2.1 <i>Value production</i>	72
2.3 DETERMINANTS	75
2.3.1 <i>Ecological dependency</i>	75
2.3.2 <i>Technological asymmetries</i>	77
2.3.3 <i>Low income elasticity</i>	80
2.3.4 <i>Low margin – low investment – low growth trap</i>	82
2.3.5 <i>Marketing chains</i>	85
2.3.6 <i>Little integration into world markets</i>	87
2.3.7 <i>Ascribed inequality</i>	91
2.3.8 <i>Political and institutional trap</i>	93
Structural Adjustment	94
Domestic Support.....	97
2.4 SMALL-FARM TRANSFORMATION.....	102
2.4.1 <i>Land concentration</i>	104
2.5 TRANSITION TO NON-FARM ACTIVITIES IN RURAL AREAS.....	106
2.6 CONCLUSION	109
Chapter III - The Good, Bad and Ugly: Productivity, Price and Profitability in Tuz	113
3.1 TUZ, A VILLAGE IN AGRICULTURAL TRANSFORMATION	114
3.2 A LIMITED LABOUR TRANSITION.....	115
3.3 PRODUCTIVITY ON THE RISE	116
3.3.1 <i>Cotton: still white gold?</i>	121
3.3.2 <i>The price trap in cotton</i>	122
3.3.3 <i>Cotton prices in Turkey</i>	125
3.3.4 <i>Output productivity in cotton</i>	129
3.3.5 <i>Rising costs</i>	132
3.3.6 <i>Cost of production at the local level</i>	133
3.3.7 <i>The profitability crisis</i>	135
3.4 ASYMMETRICAL DIFFERENTIATION	138
3.4.1 <i>Small-Farm Efficiency?</i>	143
3.5 CONCLUSION	148

Chapter IV - Non-agricultural Economy in Non-favourable Ecology: Sakal	153
4.1 GREEN REVOLUTION MISSING	155
4.2 TRANSITION TO NON-AGRICULTURAL ACTIVITIES	156
4.2.1 Rural to urban migration.....	157
4.2.2 Labour move-out	158
4.2.3 Women's role shifting.....	160
4.3 DETERMINANTS OF NON-AGRICULTURAL ACTIVITIES	162
4.3.1 Agro-ecological push.....	162
4.3.2 Urban pull	165
4.3.3 Diminishing boundaries	166
4.3.4 Urban competition.....	168
4.4 THE ROLE OF NON-AGRICULTURAL ACTIVITIES.....	170
4.5 SMALL-FARM DIFFERENTIATION WITH LAND FRAGMENTATION	175
4.6 CONCLUSION	178
Chapter V - A Captive Village in Transformation: Sinan	183
5.1 PERSISTENT INEQUALITY	185
5.1.1 Pushing migration	190
5.1.2 Bridging the GAP	192
5.2 SINAN, A CAPTIVE VILLAGE IN TRANSITION	197
5.2.1 First phase.....	199
5.2.2 Second phase.....	201
5.2.3 Peasants united vs. the landlord.....	211
5.3 LOST IN TRANSITION?	215
5.4 CONCLUSION	219
Chapter VI - New Opportunities in the Age of Globalization: A Realistic Policy Approach and the New Social Democracy.....	222
6.1 TRANSFORMATION FROM AGRICULTURE: SLOW.....	225
6.2 TRANSFORMATION WITHIN AGRICULTURE: STAGNANT	227
6.3 SMALL FARM (IN)DIFFERENTIATION	232
6.4 NEO-POPULISM VS. AGRO-PESSIMISM	234
6.4.1 The new debate.....	237
6.5 THE FUTURE OF SMALL FARMS	245
6.5.1 Labour mobility.....	246
6.5.2 Ecological dependency vs. biotechnology.....	248
6.5.3 Globalizing markets.....	251
6.5.4 'Market-friendly' land reform	254
6.5.5 New social democracy: a better framework for rural transformation.....	255
6.6 CONCLUSION	259
BIBLIOGRAPHY	263

LIST OF FIGURES

Figure 1-1 Rural population of working age (15-59) by major regions, 1980-2005.....	12
Figure 1-2 Average growth in cereal yields by major regions, 1980-2004.....	17
Figure 1-3 Trends in cereal yields by major region and country, 1980-2004.....	17
Figure 1-4 Average annual growth rates in the agricultural sector by region, 1980-2003.....	19
Figure 1-5 Annual average change in world trade by product volume, 1980-2004.....	20
Figure 1-6 Value of world agricultural exports by major regions, 2004.....	21
Figure 1-7 Share of world agricultural exports by major regions, 2004.....	21
Figure 1-8 OECD countries total (agricultural) support estimate, 1986-2004.....	23
Figure 1-9 Map of Turkey and location of case studies.....	47
Figure 2-1 Net GDP growth in Turkey by sector at fixed prices, 1980-2004.....	64
Figure 2-2 Economically active population in Turkey 1979-81 - 2004.....	64
Figure 2-3 Sources of urbanisation in Turkey, 1980-2003.....	65
Figure 2-4 Net rural to urban migration in Turkey, 1980-2003.....	66
Figure 2-5 Non-agricultural Employment Trends in Turkey, 1988-2004.....	67
Figure 2-6 Unemployment and labour participation in urban areas in Turkey, 1988-2004...	68
Figure 2-7 Percentage of employed in urban population above age 15 by educational background in Turkey, 1988-2004.....	69
Figure 2-8 Distribution of rural population (above 15) by education in Turkey, 2004.....	70
Figure 2-9 Cereals production in Turkey, 1980-2004.....	71
Figure 2-10 Average cereal yields and growth rate, 1980-2004.....	71
Figure 2-11 Map of Turkey by agricultural regions.....	74
Figure 2-12 Output value productivity in Turkey by region, 2001.....	74
Figure 2-13 Map of length of growing period (days) in Turkey.....	77
Figure 2-14 Number of tractors per 1000 hectares, 1980 vs. 2002.....	78
Figure 2-15 Average fertilizer consumption, 1980 vs. 2002.....	79
Figure 2-16 Share of irrigated land in total arable land, 1980 vs. 2002.....	80
Figure 2-17 Income distribution in Turkey, 2004.....	82
Figure 2-18 Real prices of major agricultural commodities in Turkey, 1980-2004.....	83
Figure 2-19 Share of agriculture in gross fixed investment in Turkey, 1980-2004.....	84
Figure 2-20 Wheat prices (nominal), Turkey vs. World, 1980-2004.....	88
Figure 2-21 Input subsidies in Turkey, 1986-2004.....	95
Figure 2-22 Real interest rates for agricultural credits in Turkey, 1980-2003.....	97
Figure 2-23 Producer subsidies (producer support estimate) in Turkey, 1986-2004.....	98
Figure 2-24 Composition of producer support estimate in Turkey, 1986-2004.....	99
Figure 2-25 Composition of total support estimate in Turkey, 1986-2004.....	100
Figure 2-26 Government spending on major services vs. the total support estimate in Turkey, 1986-2004.....	102
Figure 2-27 Percentage of non-agricultural households in rural Turkey, 1980-1991-2001.....	108
Figure 3-1 World cotton prices, 1980-2003.....	122
Figure 3-2 Nominal cotton prices in Turkey, 1980-2004.....	126
Figure 3-3 Cotton price trends by major indexes, 2001-2003.....	127
Figure 3-4 Trends in cotton production, import and export in Turkey, 1982-2001.....	128
Figure 3-5 Turkey's cotton imports by major source, 1993-2002.....	128
Figure 3-6 Trends in cotton yields in Turkey, 1980-2004.....	131
Figure 3-7 Trends in value productivity in cotton production in Turkey, 1980-2004.....	131
Figure 3-8 Price trends in cotton inputs relative to inflation in Turkey, 1990-2003.....	132
Figure 3-9 Lorenz curve: land operated in Tuz, 2003.....	139
Figure 4-1 Population of Sakal, 1950-2003.....	158
Figure 4-2 Distribution of Sakal's population of working-age by education, 2003.....	167
Figure 5-1 Total area operated by households in selected categories of land ownership.....	190
Figure 5-2 Rural and urban population of south-eastern Anatolia, 1950-2000.....	191
Figure 5-3 Growth in agricultural output value in GAP provinces, 1991-2001.....	195

LIST OF TABLES

Table 1-1 The share and size of economically active population in agriculture and GDP per capita in selected countries, 2004 vs. 1979-81	14
Table 1-2 Variable matrix for case selection.....	52
Table 2-1 Agricultural area and output value in Turkey, 2003	73
Table 2-2 Retail food sector trends in Turkey.....	85
Table 2-3 Percentage of households by land ownership category in Turkey.....	105
Table 2-4 Percentage of total land by land ownership category in Turkey	106
Table 2-5 Share of households engaging in non-agricultural activities in rural Turkey by region, 1980-1991-2001	107
Table 3-1 Number of tractors owned by category of farm in Tuz, 2003.....	119
Table 3-2 Price, yields and total output value in cotton production in Turkey, 1980-2003 ..	130
Table 3-3 Production cost of cotton per hectare in Tuz, 1978 vs. 2003	134
Table 3-4 Comparison of gross/net margins in cotton production in Tuz, 1978 vs. 2003 ...	136
Table 3-5 Profitability of cotton production in Tuz, 1978 vs. 2003.....	136
Table 3-6 Land distribution in Tuz, 1978 vs. 2003	138
Table 3-7 Land Rental and Sharecropping in Tuz, 2003.....	140
Table 3-8 Relationship between size of farm and quantity of labour in Tuz, 2003	145
Table 4-1 Land distribution in Sakal, 1950 vs. 2003	176
Table 5-1 Land holdings in south-eastern Anatolia, 1950-1980	187
Table 5-2 Land holdings in south-eastern Anatolia, 1950-2001 (percentages).....	188
Table 5-3 Land holdings in south-eastern Anatolia, 1980-2001	188
Table 5-4 Gross agricultural output value in the GAP region and Turkey, 1991 vs. 2001 ..	194
Table 5-5 Gross agricultural output value, the GAP provinces, 1991-2001	195
Table 5-6 Production cost of cotton per hectare in Sinan vs. Tuz, 2003.....	205

Chapter I - Rural Transformation: Concepts, Questions and Methodology

Development, in an historical sense, is a process of the economic, spatial, demographic, social and political transformation of rural societies. It involves an economic transformation from the predominance of agricultural activities, hunting and gathering to manufacturing and services activities of higher productivity. It is a process of evolution from environmental dependency, which is a stage where economic activities are closely linked to the local natural resource base, to a stage where people are de-linked from, or have greater control over, ecological constraints. It also represents a demographic transition from higher to lower fertility and mortality rates along with rural-to-urban migration. It involves a social, cultural and political transition from traditionally pre-determined communal relations into democratically defined individualistic rules of social interaction. Therefore, development, broadly defined, is essentially an historical process of transformation of rural societies in various dimensions.

This thesis focuses on the economic dimension of rural transformation and defines it primarily as a process in which labour and land productivity in agriculture rises, and, ideally, the gap between agriculture and the rest of the economy narrows. It refrains from shallow definitions describing the process as a mere decline in the share of agriculture in total output. The approach developed here focuses on the process of transformation both *from* and *within* agriculture. This approach suggests that

structural transformation takes place either through a continuous decline in the actual size of the rural labour force (*transformation from agriculture*) and/or through a rapid increase in land productivity (*transformation within agriculture*). If these two processes overlap – as Kuznets (1966) illustrated in some classic cases – rural transformation can be considered as a process moving towards ‘completion’ (Timmer, 1998, pp. 116-120).

The way rural transformation has been completed (i.e. achieving the stage of ‘developed’), and the way it has remained incomplete (i.e. continuing to be ‘developing’) is crucial for understanding the world in which we live. For developed societies, by definition, the question of rural transformation no longer exists, but it has not disappeared for the large majority of the world. Yet the economic, spatial, social and political contexts determining the scope of the transformation have continuously changed. Thus, the scientific treatment of the question of rural transformation is an historical task arising and re-arising in different contexts until it has been successfully completed.

Today’s developed countries followed different trajectories of rural transformation, although the outcome of each case was essentially similar. The earliest example took place in England from the 16th century onwards through the industrial revolution. France’s transformation came in the 18th century in the period of political revolutions. Prussia’s rural space, under Junker dominance, was transformed late in the 19th century. On the other side of the Atlantic, the United States underwent a very different process led by a technological revolution in agriculture dominated by family farms. Almost one century later, Japan’s experience was initiated under

imperial rule and continued in the early 20th century. Then, after the two world wars, the Asian Tigers, particularly South Korea and Taiwan, emerged and encouraged by radical land reforms, underwent rapid rural transformations in the era of ‘import substitution industrialization’.¹ All these examples were fundamentally distinct from each other, yet they were all successful in completing the rural transformation.

Since the Asian Tigers, there has not been any case of ‘completed’ transformation over the last quarter of a century, in an era defined as economic globalization. More than 2.3 billion Asians (60 per cent of Asia’s population), more than 550 million Africans (60 per cent of Africa’s population), in total more than half of the world’s population – around 3.2 billion people – still live in rural areas and the vast majority of them work in the agricultural sector (UNPD, 2006). Hence, the main objective of this thesis is to shed light on the questions of why there has not been any case of ‘completed’ rural transformation over the last 25 years, and how such a process of successful ‘completion’ may take place in today’s developing countries in the era of globalization.

1.1 Transformation from agriculture

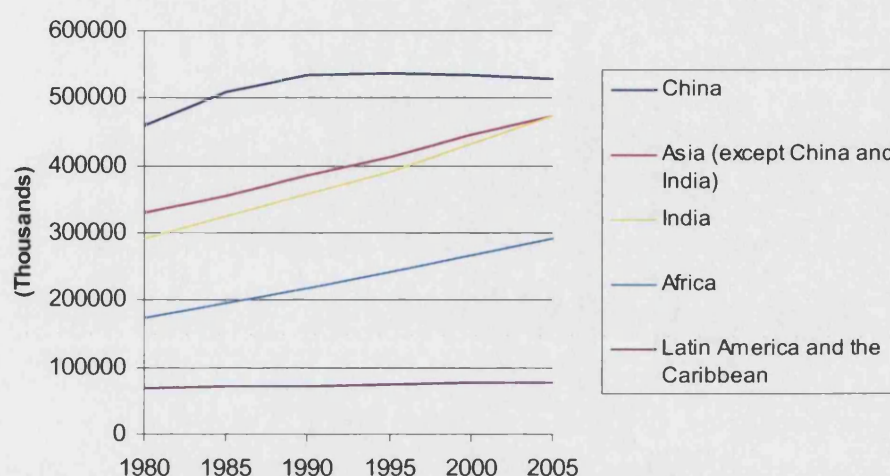
In his seminal work, *Economic Development with Unlimited Supplies of Labour*, W. Arthur Lewis (1954) argued that the traditional rural sector constituted a perfectly elastic labour source that would be the engine of growth in the modern urban economy. More productive manufacturing and services sectors would grow by absorbing surplus rural labour at a minimal cost, until the surplus disappeared.

¹ Byres (1991) analyzed six historical paths (English, Prussian, French, American, Japanese, Taiwanese/South Korean).

Today, however, in the vast majority of developing countries, although the modern manufacturing and services sectors have grown substantially, the size of agricultural labour force has not seen any significant decline over the past 25 years. On the contrary, the size of agricultural labour force has actually risen. Hence, this thesis first focuses on the question of why the ultimate goal of rural transformation – transformation from agriculture – has been slow in developing countries over the recent decades.

Although a significant extent of rural-to-urban migration has taken place, leading to a decline in the share of rural population, the world's rural population has continued to grow. During 1975-2005, the urban population of developing countries grew by an annual rate of 3.4 per cent. Given that total population growth in developing countries was 1.8 per cent per annum, and rural population growth was 1 per cent per annum (UNPD, 2005, p. 9). As a result, the size of world's rural population of working age (whether economically active or not) has grown. From the United Nations Population Division database (UNPD, 2006), we can see that Asia experienced the biggest growth in total, from 1.1 billion people in 1980 to 1.5 billion in 2005. In Asia, India saw the most rapid expansion in its rural population of working-age, from 290 million to 470 million. In Africa, it almost doubled from 173 to 291 million. Latin America and the Caribbean saw a relatively small rise of only 11 million from 1980 to 2005 (see Figure 1.1 below).

Figure 1-1 Rural population of working age (15-59) by major regions, 1980-2005



Source: Author's calculation based on World Population Prospects: The 2004 Population Revision Population Database (UNPD, 2006).

*Due to the unavailability of time series data on age distribution in rural areas, the calculation is based on the assumption that the age composition of rural and urban population is identical. This assumption may slightly overestimate the size of rural population of working age.

Similarly, the actual size of economically active population in agriculture has risen substantially over the last 25 years. According to the FAO database (FAOSTAT, 2006), in developing countries in Asia, it has increased by 200 million since 1980, from around 800 million to slightly more than 1 billion. It has risen by approximately 75 million in Africa while staying relatively stable in Latin America and the Caribbean (FAOSTAT, 2006). Looking at the world's total, the size of economically active population in agriculture increased from 1.07 billion in 1980 to 1.35 billion in 2004 (FAO, 2007).

There are only a few exceptions to the trend of increasing size of agricultural labour force. China, is one of the few countries that has managed to reversed the trend in recent years. The size of its economically active agricultural population increased from 408 million in 1979-1981 to 511 million in 1999-2001 (see Table 1.1) (FAO,

2007), but then it began to fall slowly. Apart from China, Malaysia is another Asian country where the process of labour transition from agricultural to non-agricultural activities appears to be underway. Here, both the share and size of agricultural labour force has been declining consistently over the last 25 years. In Latin America, Brazil has shown some progress - as the share of agricultural labour force declined from 37 per cent in 1979-81 to 15 per cent in 2004, and the size of its agricultural labour force decreased by around 5 million in the same period (see Table 1.1 below) (FAO, 2007).

Between 1980 and 2004, the developing world's GDP increased by almost 230 per cent (IMF, 2006), mainly through the growth of the services and manufacturing sectors. However, even those countries, which have made some progress in their labour transitions over the recent years, are still close to the economic development levels (measured by GDP per capita) that late-developer countries, such as South Korea, achieved 25 years ago. In 2004, GDP per capita was US\$ 1440 in China, US\$ 3640 in Brazil and US\$ 4280 in Malaysia; South Korea's GDP per capita was about US\$ 4000 in 1979-1981 (FAO, 2007). For the majority of other developing countries, the process of labour transition from agricultural to non-agricultural activities has been slow or stagnant, despite experiencing economic growth, in other sectors (see Table 1.1).

Table 1-1 The share and size of economically active population in agriculture and GDP per capita in selected countries, 2004 vs. 1979-81

	2004			1979-1981		
	Economically active population in agriculture (1000)	Share of economically active agricultural population in total (%)	GDP per capita (\$US)	Economically active population in agriculture (1000)	Share of economically active agricultural population in total (%)	GDP per capita (\$US)
USA	2791	2	36352	3888	3	22361
Japan	2172	3	39184	6383	11	23909
France	745	3	22987	1985	8	15788
Korea (Republic)	1944	8	12793	5725	37	3305
Uruguay	189	12	5759	192	17	5064
Brazil	12134	15	3636	17426	37	3116
Malaysia	1740	16	4277	2155	41	1847
Mexico	8453	19	5903	7988	36	5088
Tunisia	974	23	2332	851	39	1328
Syria	1636	26	1122	992	39	978
Egypt	8594	31	1558	8429	57	854
Philippines	12942	37	1100	9613	52	985
World	1347283	43	5505	1068168	52	3973
Turkey	14854	43	3171	11540	61	1873
Benin	1583	50	387	1122	68	317
Thailand	20185	53	2359	17336	71	807
India	276687	58	538	208341	69	222
China	510010	64	1441	407728	74	238
Angola	4521	71	880	2669	76	926
Kenya	12570	74	343	6367	82	361
Mali	4920	79	232	3242	89	218
Burkina Faso	5747	92	238	3343	92	187

Source: FAO Statistical Yearbook 2004 (FAO, 2007).

1.2 Transformation within agriculture

... the earliest archaeological settlement in the Middle Euphrates region (Rakka Governorate, Syria) at which the cultivation of domesticated naked wheat has been reported. Productivity, calculated from Δ of wheat grains found at this site, was relatively high, with an average (mean \pm s.d.) of 1.56 ± 0.28 Mg ha⁻¹ (1.56 tons per hectare, B.K.)... they are higher than those achieved for wheat under the current rainfed conditions of this semi-arid region (1.05 Mg ha⁻¹). (Araus, et. al, 2001. p 341)²

² The productivity estimates are based on the highly sophisticated analysis of carbon isotope discrimination (Δ) in crop seeds from the archaeological site.

Basic food plants were domesticated first in the Fertile Crescent in around 8,000 B.C. (Diamond, 1999, p. 97), so it is striking that current cereal yields in that region and, in fact, in many developing countries, are at par with those 10,000 years ago. If the inhabitants of the Fertile Crescent had some initial advantages – ecological, social and economic etc. – to become the first farmers of human history, what has prevented them from further exploiting those advantages to improve their productivity over the last 10,000 years? Many of today's developed regions, such as North America, where domesticated cereals were only adopted thousands of years after they were first domesticated, have become one the most productive cereal producers of the present time. If their inhabitants had such severe disadvantages that they had to wait another 6,000 years for their transition from the primitive stage of hunting and gathering to the advanced stage of farming (Diamond, 1999, p. 150), how have they managed to achieve such high levels of productivity in cereals over the span of just two centuries?

The second dimension of the rural transformation which this thesis focuses on is transformation within agriculture, which involves a process of agricultural modernization through both improvements in yields and a transition from low to high-value cropping patterns. However, from the outset it should be noted that the approach developed in this thesis is based on the recognition that there are fundamental constraints in that process. Marginal productivity of land gets lower as yields approach a certain ceiling level, determined for each crop by ecological and technological factors. The limitations of these constraints may vary according to the level of agricultural and technological progress. However, this thesis assumes that the ultimate constraint of the existence of a ceiling on the level of physical and hence

economic output does not disappear. Therefore, the transformation within agriculture is eventually an increasingly constrained process.

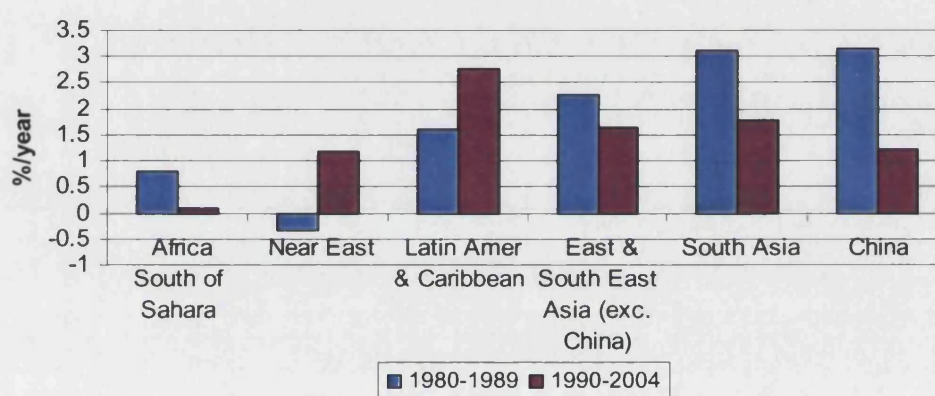
1.2.1 Yields and cropping patterns

Most arable land in developing countries has continued to be under cereals production at low yields. The share of cereals in total arable land (including permanent crops) has been approximately 50 per cent, with variations at regional level ranging from 30 per cent in Latin America and Caribbean, and 60 per cent in South Asia in 2003 (FAOSTAT, 2006). As is shown in Figure 1.2, cereal yields in developing countries have risen slowly over the last 25 years. They continued to be substantially below the yields in industrial countries which set the highest levels. In fact, the yields in South Asia, Latin America and Caribbean, Near East and Sub-Saharan Africa in 2004 were all below the level of yields in industrial countries 25 year ago (see Figure 1.3). At the highest end in developing regions, the yields in East and South-east Asia (excluding China) rose from 2.3 ton per hectare in 1980 to 3.7 ton per hectare in 2004 (FAOSTAT, 2006). At the lowest end, Sub-Saharan Africa saw no improvement at all, the yields stagnating around one ton per hectare during the entire period. With small yield improvements, cereals have continued to dominate agricultural production in developing countries.

China is a big exception in this picture. The proportion of cereal production in its cropping pattern dropped from 95 per cent of all arable land in 1980 to 50 per cent in 2003. This was possible due to its exceptional success in achieving high yields, rising from approximately 3 tons per hectare in 1980 to 5.2 tons per hectare in 2004, matching the yields in industrial countries (FAOSTAT, 2006). In turn, this has

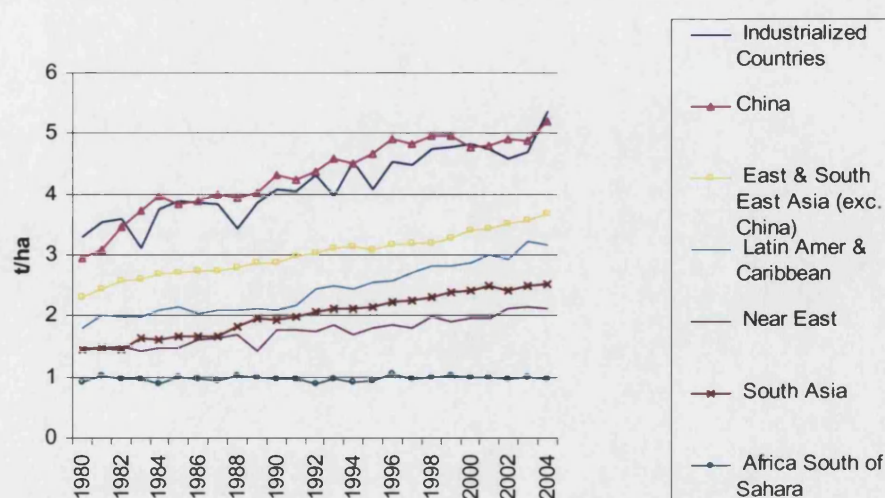
allowed China to reduce the area of land it devoted to cereal production (although its total production increased from 280 million tons to 410 million tons). The area under cereals dropped from approximately 95 million hectares to 80 million hectares in 1980-2004 (FAOSTAT, 2006). Hence, among developing countries, China is an exception in achieving high levels of cereal yields while also reducing the dominance of cereal production in its cropping pattern.

Figure 1-2 Average growth in cereal yields by major regions, 1980-2004



Source: FAOSTAT, 2006.

Figure 1-3 Trends in cereal yields by major region and country, 1980-2004

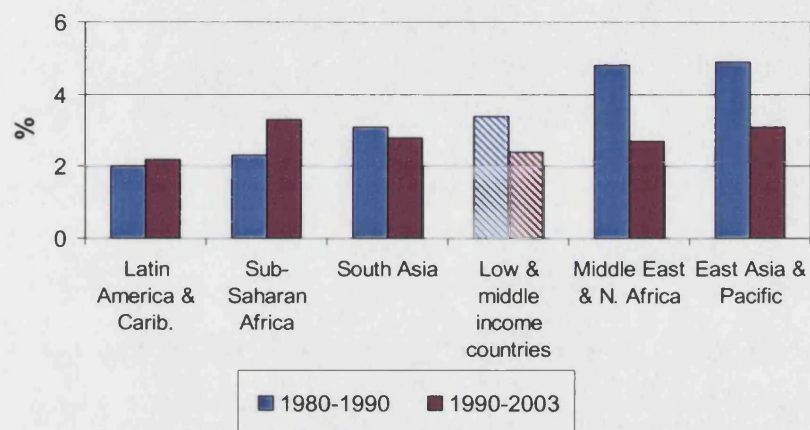


Source: FAOSTAT, 2006.

There has been some transition from low to high-value cropping patterns in some developing regions, such as the East and South-east Asia and in Latin America. For instance, the total size of primary oil crops increased by 80 percent in eastern South-east Asia, from 11 million hectares in 1980 to 20 million hectares in 2004 (FAOSTAT, 2006). This region has also managed to reach by far the highest yields in primary oil crops. The yields rose from 0.6 ton per hectare to 1.8 t/ha in 1980-2004. Combining increased size and higher productivity, total production increased by 400 per cent in the same period. The size of the area under oil crops grew by almost 100 per cent in Latin America, from 23 million hectares in 1980 to 46 million hectares in 2004, bringing a total production growth of 220 percent (FAOSTAT, 2006). The transition from cereals to higher value cropping patterns has been stagnant in other developing regions.

As for growth trends in the agricultural sector, there have been marked variations between different regions. As is shown in Figure 1.4, in low and middle income developing countries, the sector grew by an annual average rate of around 3 per cent in the 1980s, before it slowed down to slightly above 2 per cent in 1990-2003 (World Bank, 2005a). Latin America and the Caribbean showed the poorest performance among the developing regions. The sector grew at approximately 2 per cent a year in 1980-2003. Similarly, Sub-Saharan Africa's performance was very poor with 2.3 per cent a year in the 1980s, and 3.3 per cent a year in 1990-2003. On the other hand, East Asia and Pacific illustrated the highest growth rates with 5 per cent a year in the 1980s, and 3 per cent a year between 1990 and 2003 (World Bank, 2005a). Therefore, except for East and South-east Asia, the growth performance of the agricultural sector has been poor.

Figure 1-4 Average annual growth rates in the agricultural sector by region, 1980-2003.



Source: World Development Indicators (World Bank, 2005a).

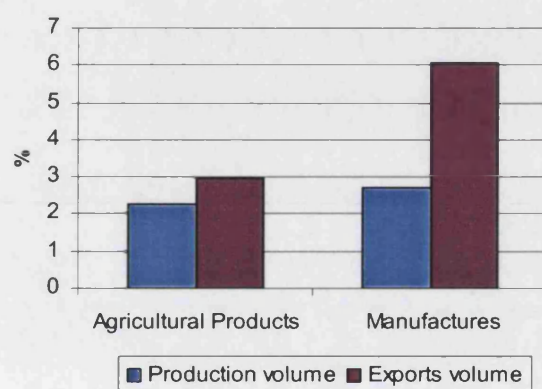
1.2.2 Limited Globalization in Agriculture

The process of economic globalization in the agricultural sector, measured here as the share of international trade in total output, has been far from truly global. There has been limited progress in the extent of trade liberalization achieved through multilateral negotiations. Compared to manufacturing and services, the share and the volume of agricultural exports in global trade have remained low. More importantly, developed countries have continued to dominate global agricultural trade, not only by maintaining their high shares but also by shaping the international trade system through their trade policies.

Between 1980 and 2004, the volume of trade in manufactures grew at a substantially higher rate than agricultural commodities. As is shown in Figure 1.5, the annual average growth in trade in manufactures was six per cent, doubling its average growth as a sector (WTO, 2005). On the other hand, the volume of trade in

agricultural goods increased by only less than three per cent on average, which was close to the sector's annual growth rate. In 2004, the value of agricultural exports amounted to US\$ 780 billion, representing a share of slightly less than nine per cent of total global trade (WTO, 2006a). Hence, the process of globalization has been relatively limited in the agricultural sector as a whole over the past 25 years.

Figure 1-5 Annual average change in world trade by product volume, 1980-2004

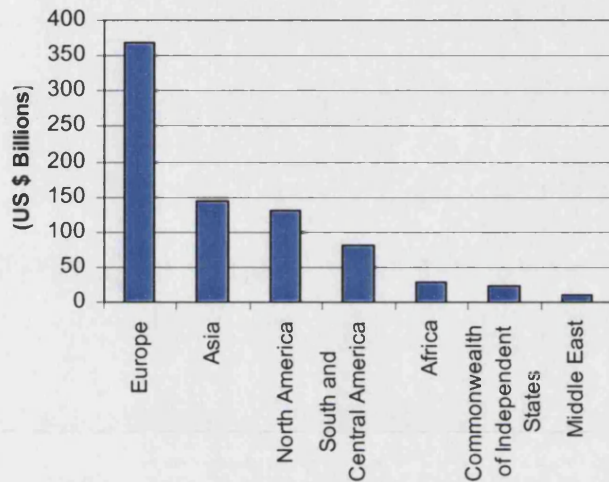


Source: WTO International Trade Statistics (WTO, 2005).

Moreover, the bulk of agricultural trade has been carried out by a small number of developed countries. In 2004, European exports constituted almost half of world's total. North America accounted for another 17 per cent. The combined value of the two regions was almost US\$ 500 billion (see Figure 1.6) (WTO, 2006a). The remaining amount, which constituted 35 per cent of global agricultural exports, was undertaken by developing countries. As is shown in Figure 1.7 below, the share of Asia was slightly less than 20 per cent, while South and Central America accounted for 10 per cent of the total. The value of Africa's exports was less than US\$ 28 billion, representing three per cent of the total. The share of the Middle East was even lower with one per cent (WTO, 2006a). As such, developed countries have

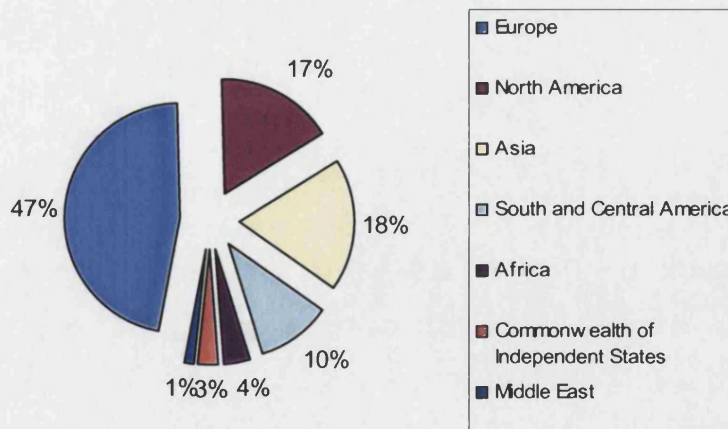
maintained the lion's share of global trade in agricultural commodities while developing countries were only involved in small proportions.

Figure 1-6 Value of world agricultural exports by major regions, 2004



Source: WTO International Trade Statistics (WTO, 2006a).

Figure 1-7 Share of world agricultural exports by major regions, 2004



Source: WTO International Trade Statistics (WTO, 2006a)

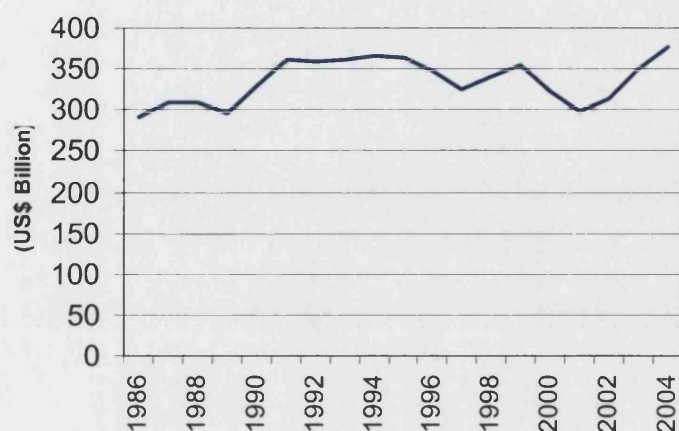
1.2.3 WTO Negotiations: One Way Street?

The Uruguay Round of the GATT/WTO initiated negotiations on agricultural trade policies at the multilateral level. Reducing protectionism and subsidies, thereby increasing trade volumes in agriculture were the main objectives of the negotiations.³ However, both the Uruguay Round and the following Doha Round have not led to substantial reductions in various forms of applied protection. Average tariffs in agriculture in developed countries, for instance, remained two to four times higher than those in manufacturing (Aksoy, 2005, p. 52). More importantly, domestic support and export subsidy policies of developed countries, which were singled out as major trade disturbing practices, have remained almost intact.

During the WTO negotiations, the most heated debates took place on the issue of trade disturbing practices, in the form of domestic support and export subsidies, pursued by developed countries, which have a direct effect on developing country producers. Between 1986 and 2004, total agricultural subsidies for farmers in OECD countries amounted to an annual average of US\$ 335 billion. It remained above US\$ 300 billion over the entire period, before reaching US\$ 380 billion in 2004 (see Figure 1.8) (OECD, 2006a). This amount was about US\$ 100 billion higher than the value of total agricultural exports by developing countries in 2004.

³ For a comprehensive review of the law of international trade in agriculture, see Desta (2002).

Figure 1-8 OECD countries total (agricultural) support estimate*, 1986-2004



Source: OECD, PSE/CSE database 1986-2005 (OECD, 2006a).

* The Total Support Estimate includes producers support estimate and general services support in a given year.

Such high levels of domestic support, including export subsidies,⁴ create an extremely unfair trade ground where the farmers of developing countries have limited power to compete, although they often have outstanding cost effectiveness. In West Africa, for instance, the cost of production for cotton was less than one third of the cost of production in the US which is even higher than world prices (FAO, 2003, p. 20). Nevertheless, US farmers were still able to control the largest share in global cotton markets, which led to an estimated loss of US \$ 260 million for 22 cotton producing, least developed countries in the 2002/03 season (Goreux, 2004, p. 16). Likewise, sugar producers of the EU continued production, until recently, with the help of US\$ 2.3 billion subsidies, although their production costs were well above world prices and double the costs of production in developing countries (FAO,

⁴ Among 27 countries reported to have export subsidies 17 of them were developed countries. In particular, the EU was responsible for the bulk of export subsidies (Matthews, 2001, p. 81; Ataman, 2005, p.50).

2003, p. 21). Therefore, global trade in agriculture has been fundamentally biased against the farmers of developing countries.

In sum, the process of rural transformation has been stagnant in the vast majority of developing countries. Most arable land has continued to be under low-value cereals at low yields. The transition from low to high-value cropping patterns has been slow too (except in East Asia and Latin America). As a result, the growth performance of the sector generally has been low, and its share of GDP has declined. However, it has continued to employ large proportions of the labour force since the labour transition away from the agricultural sector has been stagnant. A combination of stagnant or slow transformation both from and within agriculture suggests that the agricultural sector has become a labour trap for millions of rural workers undertaking low-productivity and low-income activities. Moreover, since the bulk of global agricultural trade has been undertaken by developed countries, and they have continued to maintain their trade distorting policies creating an unfair trade ground, the vast majority of agricultural producers in developing countries have been left out of the process of economic globalization.

1.3 Small-farm differentiation

Small-scale farming has continued to be the main economic activity for the bulk of the rural labour force – as the agricultural sector is dominated by around 500 million farms across the developing world. Based on FAO's database, 85 per cent of these farms are small scale, operating less than 2 hectares (Nagayets, 2005, p.356). Asia is home to almost 90 per cent of these small farms, while the biggest proportion is located in China and India. Over the last couple of decades, average farm size has

been getting smaller in the majority of developing regions. For instance, in China it fell from 0.56 hectares in 1980 to 0.4 hectares in 1999 (Nagayets, 2005, p.361).⁵ In India, it has followed a similar trend by decreasing from 2.2 hectares in 1950 to 1.4 hectares in 1995–96. Countries like DR Congo, Ethiopia, Pakistan and Philippines experienced trends of increasing number of small farms and decreasing average farm size (Nagayets, 2005, p. 361).

Since the process of labour movement from agriculture to higher productivity sectors has been slow or non-existent, which has also been accompanied by stagnation in the agricultural sectors, small farmers have faced increasing impoverishment. This is indicated by the fact that more than 70 per cent of the world's poor – some 900 million people – live in rural areas, a majority of them relying on small-scale farming for their livelihoods (IFAD, 2001, p. 18). Demographic trends in relation to the size of rural labour force, low labour demand from non-agricultural sectors combined by a slow progress in agricultural modernisation leads to a situation whereby poverty inevitably prevails amongst small farm households.

1.4 An historical account of rural transformation

The question of rural transformation is an old one going back to the school of neo-classical political economy. It was studied widely from the 1950s and 1960s until the early 1980s, reflecting the political economic realities of each period. In the 1950s, agriculture was assumed to have a passive role in economic development, and labour transition from agriculture to the industry was the primary focus. In the 1960s, it was

⁵ Cited from (Fan and Chan-Kang, 2003).

considered to be an active driver of growth along the path of economic development through its labour, capital, food, exchange and market linkages with industrial sectors. In that period, leftist political economy literature dealt with the political dimensions of rural transformation and the distribution of resources and power (Harriss, 1982, pp. 15-16; Timmer, 1998, p.118). Then, in the 1980s and 1990s, the research and policy focus on labour and agricultural transformation almost disappeared. The grand visions of structural transformation gave way to the new wave of micro level studies championing the 'local'. However, there has been a recent resurrection of the question of economic transformation, in a renewed debate on the role of agriculture and the future viability of small family farms in the context of globalization.

1.4.1 The role of agriculture

In the 1950s, heavy industrialization was the primary focus of academic and policy thinking, and agriculture – its traditional form – was said to have a passive role in economic development. Its main purpose was to provide an unlimited supply of labour to the modern sector. W. Arthur Lewis (1954) developed a dual economy model focusing on the mechanism through which large pools of rural labour – whose marginal productivity was approaching zero – could be transferred to higher productivity activities in the capitalist sector. He argued that the modern sector would enjoy high profits and expand through reinvestments, as existing wage rates would not increase until it absorbed all the 'surplus' labour. As such, the primary role of the traditional agricultural sector was to provide cheap labour to the modern sector.

The concept of 'disguised' unemployment in the traditional sector was one of the fundamental pillars of Lewis's model. He argued that if a part of the labour force was removed from the traditional sector to the modern sector, the total amount of output produced in the traditional sector would not change (Lewis, 1954, p. 141). In particular, he used the example of small family farms, arguing that because farm sizes were so small, if some members of the household found employment in other sectors, the remaining members could continue to produce the same amount of output (Lewis, 1954, p. 141). Expanding on the same concept, Sen argued that this would be the case when the remaining labour force would raise the amount of work they do, that is to say, if they increase their labour productivity (Sen, 1966, p. 429).⁶ Therefore, the transfer of labour would create economy-wide efficiencies as the existing level of output produced in the traditional sector could be produced with a smaller labour force, while the total output produced in the entire economy would increase with the same total labour force. Hence, Lewis's model was based on the process of transformation from agriculture driven by labour demand from the modern urban industry.

In that period, having analyzed the available time-series data from the 19th century United Kingdom, United States, Japan and early 20th century USSR, Kuznets (1966) illustrated the mechanisms through which the rural transformation would take place. He argued with these cases that both the share of agricultural labour and its contribution to total output had declined rapidly, although at different paces in

⁶ Sen (1966, p. 431) also argued that even if the marginal productivity of labour in the agricultural sector was not zero, but positive, i.e. that the transfer of labour would affect the total output, it does not mean that there is no surplus labour, especially when productivity is measured in terms of hours of work rather than the number of labourers. For him, what mattered was not the existence of labour surplus, but the size of the surplus and the response that the agricultural sector would give to the removal of the surplus labour (the elasticity of output with respect to labour size) (Sen, 1966, p. 432).

different countries. More importantly, in most of the cases, the share of agricultural labour declined faster than the share of agriculture in total output (Timmer, 1998, p.120), which had the effect of increasing labour productivity in the agricultural sector. As a result, labour productivity in agriculture increased more rapidly than in non-agriculture, which narrowed the gap between agricultural and non-agricultural productivity (Timmer, 1998, p.120). Hence, the process of labour transition was the driving force of the rural transformation.

By the 1960s, agriculture was attributed a more active role in economic transformation through its backward and forward linkages with the non-agricultural sectors. For instance, Johnston and Mellor specified five mechanisms through which agricultural growth contributed to overall economic development (Johnston and Mellor, 1961, p. 571). First, it would supply food for the growing non-agricultural sector. Food supplies growing at a pace that matches rising demand, would keep food prices stable. This would keep wages down, increasing profits, investments and further economic growth (Johnston and Mellor, 1961, p. 573). Second, it would contribute to foreign exchange earnings, which was considered vital especially in the early stages of development.⁷ Third, it would supply a cheap labour force to the manufacturing and to other non-agricultural sectors.⁸ Fourth, agricultural growth would provide capital for investments which was scarce in many developing countries. Finally, lack of purchasing power in the countryside was considered to be

⁷ Nevertheless, Johnston and Mellor (1961, p. 575) warned against the possibility of substantial price declines in export crops, if a number of countries expand their production altogether. Therefore, they stressed the importance of diversification in export commodities.

⁸ However, Johnston and Mellor (1961, pp. 575-576) argued that the labour transfer might not be as easy as Lewis had envisaged. This is due to the availability of good potential for expansion in the agricultural sector itself, and investment constraints in the modern sector. Nevertheless, they argued that there would be no significant labour supply constraint so long as agricultural productivity is enhanced (Johnston and Mellor, 1961, p. 576).

a major constraint on the expansion of the manufacturing sector, so agricultural growth would increase the income base of rural consumers, which would in turn stimulate the market for industrial goods (Johnston and Mellor, 1961, pp. 571-572).⁹ It was a model giving prominence to agriculture in economic transformation.

1.4.2 The role of small farming

In the 1960s and 1970s, understanding the process of agricultural growth itself was of great importance in understanding its role in economic development in general (Staatz and Eicher, 1998, p. 11). This required the structural analysis of the agricultural sector which was characterized by the widespread existence of small-scale farms in developing countries. Accordingly, there were heated debates on the role of small farms in agricultural growth and in economic development, between those who argued that small farms are economically and socially backward, and those who believed that they are efficient and hence can play a key role in economic development. It was actually a reinvention of an old debate dating back to the school of classical political economy which analyzed small-scale farming in the context of the emergence of capitalism in the late 19th century. That debate between the populists (and neo-populists) and the orthodox socialists had substantial impact on development thinking in the 1960s and 1970s.

1.4.3 The populist vs. the socialist orthodoxy

The populist and neo-populist school emerged at the end of the 19th century in Russia, and it extended its intellectual influence throughout the following century.

⁹ They argued that investment decisions were not only influenced by the availability of capital, as Lewis had envisaged, but also by demand conditions in the market (Johnston and Mellor, 1961, p. 580).

The theoretical foundation of neo-populism was established by Chayanov in the 1910s. It was based on the idealization of the dual character of small-scale farming. Combining the features of both entrepreneur and labourer, it was argued that small-scale family production was the most efficient form in agriculture. The idea of *an inverse relationship* between farm size and productivity was one of the fundamental backbones of this theory. It was argued that family producers had the ability to reduce their consumption, increase their productivity and re-allocate their land and labour endowments whenever necessary. For instance, when/if farm size gets smaller, the household would have the ability to increase its labour productivity through over-exploiting its family labour without incurring any marginal costs.¹⁰ The equilibrium points between 'social demand satisfaction and the drudgery of family labour' would define the upper and lower limits of its volume of economic activity (Chayanov, 1966, p. 53).¹¹ Such an assumed flexibility in production, cost and factor allocation inevitably led to the analytical isolation of small-scale family farming from its historical context.

Kautsky's *The Agrarian Question* (1988), on the other hand, was fundamental in terms of the evolution of the socialist orthodoxy and the German social democracy. In his book, he began by taking an evolutionist approach arguing for the elimination of small farming. He argued that like petty commodity production in manufacturing, the demise of small-scale farming in agriculture was inevitable in the process of

¹⁰ Later, this was also explained by Sen (1964) who argued that the fact that the opportunity cost of family labour was low led to productivity growth. It was assumed that marginal productivity of labour was equal to wage rate, which was also equal to the opportunity cost of family labour. Accordingly, as long as the chance of finding a wage work was equal to 1, the productivity of family labourer would be equal to the productivity of wage labour (given the formula of 'productivity = wage rate * probability of getting job'). However, because the probability was lower than 1 in most cases, the productivity of family labourer was to be above that of wage labourer.

¹¹ That is to say, the point(s) where the marginal utility and marginal labour functions meet (Chayanov, 1966, p. 81).

capital accumulation.¹² A differentiation process would take place through the dissolution of many middle-class peasants into rural wage labourers, and the transformation of a few into capitalist farmers. However, in the following chapters, Kautsky's investigation of Prussian agricultural censuses – empirically indicating the persistence of small farms – forced him to modify his views on the differentiation process. Then, he began to explain why the small farms might have persisted. He mostly attributed it to the 'peasant art of starving' rather than to their efficiency and flexibility (Kautsky, 1988, p.114). What made them tied to their lands was over-exploitation of family labour (which he called 'drudgery') through the under-consumption and overwork of children and women.¹³ As such, he made a clear causal linkage between small-scale farming and mass poverty.

In the politically polarized period of the 1960s and 1970s, the debate between the neo-populist and the 'leftist' political economy schools was renewed. Lipton (1977) politicized the small-farm orthodoxy through his 'urban bias' metaphor. He argued that intrinsically efficient family farms were left to poverty as a result of the alignment among urban capitalists and labourers, large-scale farmers and the state. For Lipton, the fallacious belief that small-scale farming was backward had made urban dwellers favour large-scale farming.¹⁴ For orthodox socialists, on the other hand, the demise of small-scale farming was inevitable through the socio-economic differentiation process as envisaged by the early socialists. For instance, looking at the context of political economic relationships among the state, external actors and

¹² He was following the line of argument proposed by Lenin (1977).

¹³ He stressed the existence of a 'poverty trap' by emphasising the extent of child labour: 'child-labour often begins as soon as the children can walk' (Kautsky 1988, p. 115). His gender sensitivity at that time also deserves attention.

¹⁴ The argument against those who considered small farms as backward goes back to Schultz (1964) who argued that small farms use their limited resources efficiently.

domestic capital in post-colonial Africa, Bernstein (1979, 1988) defined small-scale family production as a by-product of the commoditization initiated by colonial powers for particular economic and ideological reasons. As such, the leftist literature dealt directly with the political dimensions of agricultural development within the broader concept of rural development (Harriss, 1982, pp. 15-16; Timmer, 1998, p.118).¹⁵ The central focus of their analysis was on the ownership and control of resources and power (Harriss, 1982, p. 22).

1.4.4 The 1980s: micro is beautiful

In the 1980s and 1990s, the grand visions and overarching themes of economic transformation gave way to micro-level studies with 'post-modern' themes. The policy and research focus on the role of agriculture in economic development almost disappeared. While the dominant 'Washington Consensus' was paying no particular attention to agricultural development in policy formation (de Janvry, et al., 1997), and exclusively concentrating on market-driven growth, academia lost its interest in the big questions of agricultural and rural transformation. Instead, a new form of micro level 'participatory' models, and 'rapid appraisal' studies championing the 'local' became fashionable (Ellis and Biggs, 2001, p. 443). This approach led by, among others, Chambers (1997, pp. 54-55) opposed macro level quantitative approaches, and argued for participatory approaches, emphasizing the norms and knowledge of local people (Chambers, 1997, pp. 238-40).¹⁶ The economic dimension of this approach appeared in studies of livelihoods and their diversification (Ellis and

¹⁵ The leftist school dealt with the issue as part of broader and historical themes such as the transition from feudalism to capitalism, and the emergence of capitalism in agriculture: see, for instance, the Brenner debate in (Aston and Philpin, 1985).

¹⁶ Chambers (1993, p. 8) considered the perceptions of 'outsider' professionals as biased because of their 'power, wealth and knowledge'.

Biggs, 2001, p. 444-5). As such, over the 1980s and 1990s, the old political economic debate on the rural transformation was replaced by a new wave of apolitical studies championing local identity, culture and micro-economics.¹⁷

1.4.5 The 2000s: agro pessimism vs. neo-populism

The debate on agriculture is now regaining its much-deserved momentum at a more appropriate macro level. During the last five years, there has been a fresh debate on the role of agriculture and small farms in economic development and poverty eradication in the context of globalization. It seems to be taking place between two competing camps: the ‘neo-populist small-farm orthodoxy’ school versus the agro-pessimist ‘rethinking rural development’ school. The former relies on the old paradigm of small-farm efficiency in arguing that pro-poor growth depends on family farms, while the latter takes a sceptical view on the future viability of small farms, emphasizing the role of non-agricultural activities in poverty alleviation and economic development.

The ‘small-farm’ school led by Lipton argues that since small farms dominate the rural space in terms of the proportion of agricultural value-added, area and workforce, their resilience and persistence can be taken as an indication of their present and future viability (Lipton, 2005, p.1). The members of this school of thought have long argued that small farms are advantageous in the early stages of development, since their labour-related transaction costs are low (Lipton, 2005, p. 4). The so-called inverse relationship between farm size and productivity constitutes the

¹⁷ On micro-economics, important studies were carried out on the ‘rationality’ of peasant behaviour at the individual level, see for example Bardhan (1989, 1999) and Stiglitz (1989).

theoretical foundation of this argument. The neo-populist school takes an optimistic approach in relation to the future viability of small farms and envisages that they can still play a major role in economic development and poverty alleviation (Hazell and Diao, 2005, p. 33).

The 'rethinking rural development' school, on the other hand, offers a pessimistic view on the role of agriculture in economic development in the context of globalization. In particular, writers of this persuasion question the economic viability of small-scale farming. They stress that due to the continuous decline of agricultural commodity prices and the removal of input subsidies in developing countries, the profitability of the sector as a whole has shrunk over the past 30 years, putting pressure on small-farms (Ashley and Maxwell, 2001, p. 404). They also look at global food chains, and claim that small-farms are not competitive at the global level. Higher transaction costs and institutional development failures disconnecting small farms from dynamic markets constitute major disadvantages for small farms (Kydd, 2002, p. 2; Kydd and Dorward, 2001, p. 471). Therefore, agro-pessimists suggest that diversification from agricultural to non-agricultural activities would play the major role in rural economic development (Ashley and Maxwell, 2001, p. 404).

This thesis takes a position in the new debate between the neo-populists and the agro-pessimists on the role of agriculture and small-scale farming in poverty alleviation and economic development. It distances itself from any deterministically pessimistic or optimistic position reflecting the ideological backdrop of the debate dating back to the 19th century. It argues that the neo-populist paradigm of small-farm efficiency envisaging that small-scale farming can still play a major role in

economic development is questionable for a large number of small farms in developing countries. Similarly, the thesis positions itself away from the deterministically pessimistic view of the 'rethinking rural development' school on the future viability of small farms. Hence, rather than subscribing fully to either school's line of argument the thesis develops a realistic and pragmatic approach, informed by local and regional variations, and aimed at synthesising the strong points of the two schools.

1.5 Research themes and questions

Is there any case in the developing world where the question of rural transformation has been completed over the last quarter of a century? The answer is 'no'. Then, 'is the question of rural transformation the same' must follow, for which the answer is again negative. The economic, political, social and demographic factors that affected the process have changed. In other words, the variables determining the process of rural transformation have changed, interacted with others and multiplied in number. Therefore, the simple replication of any historical path that today's developed countries had followed cannot be envisaged for today's developing countries. Hence, there is a challenging need for a renewed treatment of the question against the new background of economic globalization.

This thesis deals with four major themes and subsequent research questions which will be probed in the name of Turkey:

- First, the thesis attempts to answer the questions of why the *transformation from agriculture* has been slow. What are the major factors affecting the

process of labour transition from the agricultural to the manufacturing and service sectors? How do these factors interact?

- Second, it focuses on the process of *transformation within agriculture* and investigates why it has been stagnant. It analyzes the major factors affecting land productivity and the transition from low to high-value cropping patterns. How do ecological, technological, social, market-related and political factors affect the transformation within agriculture?
- Third, the thesis focuses on the process of small-farm differentiation. What are the factors that determine the predominance of small farms and how do they affect the process of scale differentiation?
- Fourth, it investigates the future viability of small farms and the potential likelihood of the completion of rural transformation in the era of increasing economic globalization. What would be the necessary conditions within which the major factors affecting the transformation both from and within agriculture operate to make the process move towards completion?

1.5.1 Hypotheses

Based on these research themes and questions, the major causal hypotheses are as follows:

The process of *transformation from agriculture* has been slow. The size of rural labour force has been growing.

- (i) A combination of rural and urban population growth and limited absorption capacity of non-agricultural sectoral growth slows down the

process of labour transition from agricultural to non-agricultural activities.

- (ii) The low level of educational attainment of the rural labour force constitutes a major obstacle in the labour transition from the rural to the urban sectors – as the urban demand for low-skilled labour is declining.
- (iii) Within the realm of the rural economy, the transition to non-agricultural activities takes place through forward and backward linkages between the agricultural and non-agricultural sectors. Improved commuting and transportation infrastructure reduces the physical and communicational isolation of rural areas and eases the occupational transition within the rural space.

The process of *transformation within agriculture* has been stagnant – as low yield staple food production dominates the sector and the transition to high-value cropping patterns is slow:

- (iv) Due to the lack of substantial progress in technology, agro-ecological circumstances constraint yields and cropping patterns at the local level. Agro-ecological variations constitute the major factor determining variations in agricultural productivity.
- (v) Since agricultural prices, at the global and national levels, have been falling over the last three decades, the terms of trade have been unfavourable for agricultural commodities; there is a significant profitability constraint on the sector as a whole.

- (vi) The low income elasticity of demand for staple foods and demand restrictions for higher value agricultural commodities discourages agricultural growth and transition to higher value cropping patterns.
- (vii) 'Ascribed' inequality (inequity based on social and political factors) in the distribution of income-generating assets has a negative impact on agricultural growth – as it creates serious inefficiencies in the allocation of resources.
- (viii) The 'structural adjustment' programs and the 'Washington Consensus' have weakened institutional capacities that are vital for the process of agricultural development. Through the impact of their tight public policies, the neo-liberal doctrine has created a macro-economic environment which is not conducive for the transformation within agriculture.
- (ix) The extent of economic globalization in the agricultural sector has been limited. The share of agricultural goods in total trade has been relatively small. The further integration of small farms is hampered by the lack of institutional development at the domestic level and by continuous market access restrictions, domestic support and export subsidy policies of developed countries at the global level.

Small farms have continued to dominate the agricultural sector:

- (x) Due to low land and labour productivity in the agricultural sector and the lack of labour transition, small farming has become a huge labour trap with massive unemployment and under-employment. If a large part of the

rural labour force is removed from the agricultural sector to the non-agricultural sectors, the total amount of agricultural output would not change (Lewis's 'disguised unemployment'). As such, there is a huge potential for economy-wide Pareto efficiency gains.

- (xi) The importance of small-scale agriculture as a major provider of capital and foreign exchange, and as a market for non-agricultural consumables has been diminishing. The agricultural sector dominated by small farms no longer plays a central role in overall economic development at the national level. However, it continues to play a crucial role in local economic development through its production, consumption and investment linkages.
- (xii) Due to a combination of weak non-agricultural demand for rural labour failing to reduce the size of rural labour force and weak sectoral growth in agriculture failing to create substantial stimulation for competitive farms to expand their operational capacity, the process of scale-differentiation through land concentration does not take place.

1.5.2 The position of Turkey

This thesis tests the above hypotheses on Turkey. As a middle income developing country, it is an excellent illustration of how rural transformation has been slow over the recent decades. One-third of the total population continues to live and work in the agricultural sector which highlights a situation where the share of agriculture in total output is diminishing without this leading to a labour shift to the non-agricultural sectors. It also offers a case where the factors leading to the poor performance of the agricultural sector can be assessed effectively. Since the sector is dominated by

around four million small farms (less than six hectare on average), it allows for the investigations of the future of small farms too.

The contribution of agriculture to Turkey's GDP steadily dropped from 26 per cent in 1980 to 17.5 per cent in 1990 and to 11.2 per cent at in 2004 (SPO, 2006). However, more than 35 per cent of the total population, namely 22 million out of 70 million, currently lives and works in rural areas. There has not been any significant decline in the absolute number of 22-23 million people living in rural areas for the last three decades (SIS, 1984a; 1991; 2003c). Meanwhile, the size of agricultural population has actually risen. On the other hand, the process of agricultural development has been stagnant. Between 1980 and 2003, while the country's GDP increased by an annual rate of 3.7 per cent, the average growth rate of the agricultural sector was only one per cent (SPO, 2006).

1.5.3 Turkish debate

Similar to Latin America and India, the mid-1960s witnessed a vigorous debate amongst the Turkish intelligentsia, especially among its leftist contingent, on 'developmentalism' and the question of rural transformation. The controversial issue of land distribution and its socio-political ramifications was the main focus of analysis. Although the major arguments were based on a few anthropological studies, land censuses of poor reliability, they constituted a base for further debate and research.¹⁸ A particular debate between Boratav and Erdost on agrarian social structures was one of the departure points. While Boratav (1969a; 1969b) argued for

¹⁸ Among others, Karpas (1960), Yasa (1965), Kolars (1967), Kiray and Hinderink (1970) provided important early contributions to the field of rural studies in Turkey. More recent studies include those referred to in the text. Aksit (1985; 1988; 1993) summarizes the general trends in that literature between 1950 and 1990.

the predominance of family-farm production under the banner of market relations, Erdost (1969a; 1969b) based his argument on the historical dominance of feudal landlords over the peasantry.¹⁹ This debate continued throughout the 1960s and the 1970s (Boratav 1969a, 1969b, 1970, 1980; Culhaoglu 1970; Erdost 1969a, 1969b, 1969c, 1969d, 1970, 1984; Kutlay 1970a, 1970b; Selik 1969).

New actors began to take part in the debate at the end of the 1970s. Along the lines of the neo-populist school, some scholars, such as Keyder, argued that small-scale family production dominated the rural space, and they were the most efficient and stable form of production in agriculture (Keyder, 1983, p. 46). Having studied the data collected through a research undertaken between 1978 and 1981, Keyder argued that small-scale family production in Turkish agriculture could be analysed through three distinct village ‘transformation paths’ in addition to ‘capitalist farming’ (Keyder, 1983, p. 34).²⁰ Based on the predominance of small-scale farming, he specified a typology which was evaluated through five village cases reflecting these ‘distinct’ transformation trajectories.

The first village represented the ‘production for subsistence’ type. It was suggested that this type would eventually become extinct. Since there was no substantial potential for surplus production, the village was expected to be abandoned through rural-to-urban migration (Keyder, 1983, pp. 37-38). The second village represented the ‘subordinate commercialisation’ type. In this case, it was argued that the

¹⁹ For a substantial review of the debate, see Seddon and Margulies (1984), Margulies (1985) and Aydin (1987).

²⁰ Keyder’s (1983) article was originally written as an interim report of the research project called ‘Rural Transformation in Turkey and Seasonal Migration’ funded by the Population Council. The project was undertaken by A. Akcay, B. Aksit, T. Arcanli, H. Inan, N. Kalaycioglu, C. Keyder, A. Saktanber, D. Seddon, and N. Sirman-Eralp.

availability of supplementary income through seasonal employment would postpone the dissolution of small-scale family production (Keyder, 1983, p. 40). The next two villages represented the 'petty commodity production with accumulation' type. It was considered to be the most stable form of production, since small-scale family farms could produce surplus without relying on external labour. The low supervision costs of family labour were seen as the fundamental pillar of the process of the reproduction of the family farm (Keyder, 1983, pp. 40-42). The fifth village was located in South-eastern Anatolia. Since its production structure was polarised between landless peasants and a landlord enclosing the land, it was considered to be a historically exceptional case, confined to the region. Because of the management difficulties and high monitoring costs of large-scale production, it was argued that this type would eventually dissolve into small-scale family units (Keyder, 1983, p.46).

The methodological framework of this approach was re-appraised critically by Aksit (1993, p.200) – who had been involved in the 'paths of rural transformation' project - on the basis that it took villages as an entity, ignoring variations and the process of differentiation within the village. It also received criticism for not having investigated the villages in their regional contexts (Hann, 1985, p.108). It provided a descriptive analysis of certain patterns ('paths') of rural transitions, yet it did not account for many important factors such as the role of the state, national policy environment, local resource base, technology, market mechanisms (those affecting prices, demand, supply, productivity, profitability etc.). Hence, it was argued to be abstract and simplistic, failing to capture high levels of variation and complexity in rural areas (Stirling, 1993, p. 14).

On the other hand, scholars such as Cinar and Silier (1979) followed the orthodox socialist line, outlined earlier in the 1960s by Erdost and others, arguing for the ultimate differentiation of small farms through land concentration leading to a structure that would be based on landless workers dominated by capitalist farmers. They analysed official land censuses and argued that there had been a trend of increasing land inequality in rural areas, indicating that the process of differentiation had been underway.

With the beginnings of the 1980s, while the Turkish political economy was experiencing a turning point from 'import substitution industrialization' to export-led 'neo-liberalism', these debates suddenly vanished, and studying agricultural and rural development has become a *passé* fashion. Academic interests, following international trends, moved to micro level studies addressing sociological issues such as migration, identity and gender.

For instance, Abadan-Unat (1993), examined the socio-political aspects of external migration in rural Turkey. She portrayed 'a chain reaction of social change', ranging from technological innovation to social stratification and political participation, caused by external migration in Turkish villages. In a more specific regional context, a group of scholars examined temporary and seasonal population movements in South-eastern Anatolia (Aksit, et al., 1996). The trends of migration along with their major pull and push factors were investigated in an empirical study. Again, in the same regional settings, the socio-economic implications of the GAP irrigation project, were studied by Aksit and Akcay (1997). The subject of gender relations in

rural Turkey, at the village and household levels, was also a point of interest. While Incirlioglu (1993) was studying marriage and gender relations with respect to the general level of rural transformation in Central Anatolia, Hann (1985; 1990; 1993) examined it in a tea-producing village in North-eastern Anatolia with respect to gender division of labour. However rare, some ethnic and religious identity studies were also undertaken. Tribe and kinship among the Kurds in Eastern Turkey (Yalcin-Heckmann, 1991) and the impact of religious identities, namely of the sects of Alevi and Sunni (Shankland, 1993), was linked with social change in rural Turkey.

Turkish agriculture from economic and policy perspectives have recently become a point of some interest again after Turkey started its accession negotiations with the European Union in 2005. Since the negotiations on agriculture are expected to be the toughest part of the entire negotiation process, the agricultural sector, albeit to a large extent from a technical and bureaucratic point of view, has been regaining some scholarly attention.²¹ Nevertheless, there is still a large gap of knowledge and analysis on the various dimensions of rural transformation. In particular, the role of agriculture and small-scale farming in the country's economic development has been neglected. Therefore, this thesis aims at filling a 'gap' in rural development literature and policy thinking by (re)studying rural transformation in Turkey in the context of globalization.

²¹ For examples, see (Akder, et al, 1990), (Akder, et al, 2000), (Cakmak, et al., 1999), (Cakmak and Kasnakoglu, 2002), (Cakmak and Akder, 2005), (Grethe, 2004), (European Commission, 2003), (European Commission, 2004).

1.5.4 Methodology: longitudinal approach

The analytical boundaries of research in this thesis have been drawn at the global and national levels. However, there is a need for testing the research hypotheses at the local level too. Therefore, this thesis seeks to expand its explanatory power by combining its analysis at the country level with case studies at the local level.²² It is envisaged that the micro-level village case studies would strengthen the study by providing some in-depth analysis. For macro-level trends, the thesis relies on official surveys and censuses that have been undertaken over the last three decades. For micro analysis, since the subject studied here is essentially about social change, this research is designed to use the longitudinal tool in order to capture the actual mechanisms of rural transformation over the last 25 years.²³

The selection of particular cases was based on a combination of theoretical, methodological and practical considerations. The primary criterion was that potential cases had to have been studied before, so that they would be taken as the first wave of the longitudinal study. Since this research is investigating rural transformation over the last two to three decades, case studies had to have been undertaken around the late 1970s and early 1980s. They were also required to have some content

²² Macro level surveys are more quantifiable, representative, comparable, but they suffer from the lack of sociological relational links and in turn being 'sterile' (Appadurai, 1989, p. 252). Even if they offer generalised trends and causal relationships, they do so at the risk of reflecting occurrences rather than 'realities'. Hence, they are likely to miss alternative causal forces (Harriss, 1989, p. 139). They are informative in terms of extension but deficient in terms of depth. On the other hand, micro-level ethnographical approaches have the ability to perform reliable in-depth investigations. Yet, their credibility is weakened because of their unknown representativeness at broader levels. Consequently, if both levels of analyses are considered simultaneously, it appears that the plausibility of one analysis can be enhanced by the supplementation of the other (Collins, 1981, p. 94).

²³ The longitudinal method offers a dynamic tool enhancing the analysis of the magnitude and speed of social change by comparing measurements at two different points in time. It improves the description of intra- and inter- unit (individual, household, community) transitions overtime by highlighting differences occurring in the period between these points. It also provides valuable information about the 'temporal order of events' in time (Taris, 2000, p. 4). For more on longitudinal research, see (Ruspini, 2002).

equivalence with this research and provide comparable information in relation to economic, social, environmental, demographic and political dimensions of the rural space. In addition, given that the research hypotheses are based on multiple variables, the cases must have been selected to enable the isolation of certain independent variables that make possible any measurement of the effect of others. In sum, case selection considered independent variables and methodological relevance. After a pilot study covering 12 villages that had been studied in the 1970s and the 1980s, three cases were selected.

The field research was designed to be mainly quantitative and comparable to the previous researches conducted in these villages. For each case, a formal questionnaire covering household demographics, labour force, occupational compositions, production and market relations (prices, productivity, costs and trade etc.) and land distribution was canvassed. On the other hand, since the field research was conducted by staying in each village around two months, it involved a participatory dimension, which allowed for an enhanced understanding of the underlying processes of social change. Although it was not the primary focus of the research, some qualitative information about village histories, life course narratives, political attitudes was also gathered which enriched the interpretation of the quantitative data. As such, the field research was mainly quantitative, while also having some implicit qualitative facets.

Figure 1-9 Map of Turkey and location of case studies



First case: Tuz

Tuz is located in western Anatolia (see Figure 1.9 for its location). The anthropological study that Sirman (1988) undertook in this village between 1978 and 1984 is taken as the first wave of this longitudinal study.²⁴ In her research, Sirman primarily investigated the state-society relationship at the local level and female labour in family farms. She undertook a rigorous analysis of the village economy. In particular, she investigated the various dimensions of small-scale family farming, and provided insightful information about labour-intensive cotton production in Turkey (Sirman-Eralp, 1988). The village of Tuz had the following characteristics in the early 1980s:

- (i) Its population growth rate had been natural with no significant rural-to-urban migration.
- (ii) It enjoyed a favourable ecology, providing high natural potential for agricultural development; it had partial irrigation infrastructure;

²⁴ Sirman's research in the village was the fieldwork of her doctorate thesis, *Peasant and Family Farms: the Positions of Households in Cotton Production in a Village of Western Turkey* (Sirman, 1988).

- (iii) It had a vibrant agricultural economy based on high-value cotton production;
- (iv) Input and output markets were fully operational; its economy was well integrated with the local and regional markets;
- (v) Distribution of land and water resources was relatively equal. Small farms dominated the village's agricultural economy;

In a preliminary field study in 2000, it appeared that Tuz's agricultural economy had been integrated into global trade after Turkey liberalized its cotton markets. Similarly, it had fully encountered the local impact of new domestic policies that had been recently adopted. The population of the village had continued to grow at a natural pace without considerable out-migration. In 2003, Tuz was chosen to be restudied in order to investigate the process of rural transformation in a context where the impact of ecological, infrastructural conditions and unequal distribution of land can be isolated relative to the other cases (see Table 1.2 below). It allows for the analysis of market-related factors in relation to prices, costs and trade on the process of transformation within agriculture.

Second case: Sakal

Sakal is in central Anatolia (see Figure 1.9 for its location). It was first studied by Stirling at the beginning of the 1950s (Stirling, 1965). His study was one of the earliest examples of anthropological village studies in Turkey. He revisited Sakal in the 1970s and in the 1980s and investigated trends of change from a multi-

dimensional perspective (Stirling, 1974, 1993).²⁵ During the course of his study, Stirling examined a broad range of social, cultural, political and economic issues including small-scale family production in agriculture, income diversification and market integration. The village had the following characteristics in the early 1980s:

- (i) Its population had been declining due to seasonal and permanent outward migration, national and international;
- (ii) It had a severely unfavourable ecology for agricultural development. The climate was dry, hot in summer, cold and frosty in winter; its soil quality was poor and there was no irrigation infrastructure;
- (iii) Its agricultural economy had been stagnant. It was based on low-value staple food production with extremely low yields;
- (iv) The relative importance of agriculture had been diminishing, and there has been substantial labour transition from agricultural to non-agricultural and non-rural activities;
- (v) Relatively equally distributed small farms had always predominated in its socio-economic structure.

By 2000, agricultural production had continued to stagnate, and there had been no change in cropping patterns. There had been no investments in productivity enhancing infrastructure, such as irrigation. However, the majority of households gradually had developed non-agricultural and non-rural income activities, such as

²⁵ Stirling's publications on this village along with an extensive photo-gallery and video footage have been collected and are being posted on a web archive, '45 Years in Turkish Village', <http://lucy.ukc.ac.uk/Tvillage> (Stirling, 2006).

carpet weaving and working in the construction sector in urban areas.²⁶ It was also observed that the village population had been in decline for the last two decades as a result of rural-to-urban and transnational migration. In 2003, Sakal was chosen to investigate the impact of unfavourable agro-ecology on transformation within agriculture. The case is also relevant for analysing the various dimensions of diversification from agricultural to non-agricultural activities within rural areas.

Third case: Sinan

Sinan is in south-eastern Anatolia (see Figure 1.9 for its location). It was first studied by a team of researchers in 1979 and 1981 as a part of a wider project on agricultural development and seasonal migration in Turkey. Some of the research findings on Sinan have been published in various articles by Akcay, Aksit and Keyder.²⁷ The most detailed information on the village appeared in Akcay's master's thesis (Akcay, 1985). For the consistency of the longitudinal assessment of the political and economic development that the village has experienced over the past 25 years, this research draws mainly on Akcay (1985). Akcay investigated the transformation of the traditional large-scale land ownership that had prevailed in Sinan. The timing of his study is almost the same as that of Sirman. The village had the following characteristics in 1980:

- (i) Its population had been increasing (with some rural-to-urban migration);
- (ii) It had a moderately favourable ecology for agriculture, enjoying mild climatic characteristics;

²⁶ In this village, Ayata (1982) investigated carpet weaving within the framework of small-scale family production; Incirlioglu (1993) conducted research on marriage and gender relations with an emphasis on the intra-household division of labour.

²⁷ See Akcay (1985, 1999), Aksit (1988, 1993) and Keyder (1983).

- (iii) The entire land of the village had been under the control of a single landlord family. Peasants had no ownership rights, and they had access to land only through custom;
- (iv) Its agricultural economy directly depended upon the landlord's operation. The family's own production, consumption and investments were the village's only linkages to regional and national economies. The peasants had no significant market orientation;
- (v) The nature of the politics of state-society relationships had been historically decisive; the landlord family managed to acquire the control of the entire land through political means, and state policies had always been pro-landlord at the expense of the peasantry.

By 2000, the extreme inequality in Sinan had not changed – as the landlord family had continued to control the entire land and water resources. However, there had been substantial developments in its agricultural economy. Public investments in irrigation infrastructure in the early 1980s had generated a big growth potential. The size of irrigated land increased, and there had been a transition from low productivity cereals production to high-value cotton production. The landlord had reduced the size of his own large-scale operation and moved out of the village. In 2003, Sinan was chosen to be restudied in order to investigate the process of rural transformation in a context where the impacts of ecological, infrastructural and market-related conditions can be fairly isolated (relative to other cases). It offers a case for investigating the impact of extreme inequality on rural transformation.

Variable matrix

Table 1.2 provides a matrix showing the combination of factors that the three cases offer as a basis for the measurement of others. Each case would exemplify the impact

of some isolated variables on selected dimensions. Rather than claiming representativeness, which would be impossible in a country where there are more than 30,000 villages, the cases provide thematic analyses that are also relevant beyond these villages in Turkey. Although, one can expect to find other villages experiencing similar trends, the objective is not to typify a certain trajectory of rural transformation. The aim is to investigate the impact of major factors (such as price trends and macro-economic policy environment in Tuz, unfavourable ecology and non-farm activities in Sakal, inequality and power relations in Sinan) on the various aspects of the process of transformation from and within agriculture at the village level. This would also make the research relevant beyond these cases (and possibly beyond Turkey) where these major factors operate. Furthermore, the purpose of the micro-level longitudinal case studies is not to prove/disprove the central research hypotheses, but to improve the explanatory power of the arguments made at the aggregate level.

Table 1-2 Variable matrix for case selection

	Tuz (Case I)	Sakal (Case II)	Sinan (Case III)
Demography	Low rural-to-urban migration	High rural-to-urban migration	Moderate rural-to-urban migration
Ecology	Highly favourable ecology	Unfavourable ecology	Moderately favourable ecology
Cropping Patterns	Full transition to high-value cropping patterns	No transition to high-value cropping patterns	Partial transition to high-value cropping patterns
Agricultural market integration	Full integration into national and international markets	Low integration into national markets No integration into international markets	Moderate integration into national and international markets
Small-farm dominance	Small farm dominated	Small farm dominated	Landlord dominated
Inequality	Moderate inequality	Low inequality	High inequality

Other villages, besides these three, were studied several decades ago, and have been considered in the overall analysis. For example, Kiray and Hinderink (1970) studied two cotton producing villages, Yunusoglu and Sakiz, in Adana (in the Mediterranean region) in the 1960s. They observed that as the villages were integrating into national markets through high-value cotton production, they had experienced a process of small farm differentiation. Aksit (1967, 1982) studied a cotton-producing village, Ilusu, in Antalya, where his follow-up study proved later that small farms had not followed a trend of differentiation but that they had persisted. Yesildumlupinar in Central Anatolia, studied by the group of researchers working on 'Rural Transformation in Turkey and Seasonal Migration', was a village located in an unfavourable ecology like Sakal. It was also similar in other features such as its cropping patterns, market integration and the distribution of natural resources. Elbasi, investigated extensively by Stirling (1965), was located in the province of Kayseri where Sakal is located. In south-eastern Anatolia, one of the villages Aydin (1986) studied, Kalhana, was similar to Sinan in terms of the extent of land equality. It was dominated by two landlord families entering into sharecropping and rental arrangements with peasants. The village Hann (1990) investigated, Sumer, was located in a different regional context where tea-production was undertaken by small family farms in the north-eastern Black Sea region. His study underlined the various dimensions of the commodification process that the village economy had undergone.

The previous studies undertaken in the three villages - Tuz, Sakal, Sinan- selected for this analysis and also the majority of other studies listed above, investigated the

various social, cultural aspects of rural transformation as well as economic and political aspects. From sociological and anthropological perspectives, they provided an in-depth description and analysis of particular set of social relationships and their implications at the local level. The present study, however, as underlined at the beginning of the thesis, focuses almost exclusively on the economic aspects of rural transformation. For that purpose, it takes the cases that have been studied as a platform to undertake the longitudinal analysis of economic developments rather than to attempt any all-embracing sociological follow-up. Although, it investigates local socio-historical relations in one particular case, Sinan, and other sociological issues such as gender relations in Sakal, the boundaries of this research are drawn to define in the realm of the economic aspects of rural transformation as the focus of study and analysis.

1.6 Research relevance

The economic dimension of rural transformation is an historical process which is completed when previously rural societies achieve a 'modern' stage of development in which the vast majority of their labour force engages in high-productivity manufacturing and service activities while a small minority undertakes high-productivity and high-value agricultural activities. Today's developed countries have undergone various rural transformation paths to achieve that stage. However, there has not been any case of a 'completed' transformation over the last quarter of a century since a couple of successful examples in Asia in the 1960s and 1970s. On the other hand, today's 'developing' countries, the ones that have not completed their rural transformation, have been going through a new economic era, defined as globalization. It brings into play new factors and variables that make any previous

trajectories impossible to replicate. There arises the scientific task of restudying rural transformation in this new historical context.

The main concern of this thesis is the question of why the ultimate goal of rural transformation – *transformation from agriculture* – has been missing or slow and why the process of *transformation within agriculture* has been stagnant over the past 25 years. The actual size of the rural population of working-age has increased in major developing regions, especially in South Asia and Africa. Apart from some small decline in the size of labour force in China, the rural sector, and mainly agriculture, has continued to employ the majority of the labour force in the developing world. However, the process of agricultural modernization through improvements in yields and a transition from low to high-value cropping patterns has also been slow, albeit with significant variations at the regional level. Apart from East and South-east Asia, the majority of arable land in developing countries has continued to be under cereals production at low yields. Similarly, the process of globalization through trade has not played a significant role in the modernization process. The share of developing countries in global agricultural trade has remained small. The trade distorting policies of developed countries have excluded the vast majority of developing country farmers from participating in economic globalization.

The agricultural sector has been dominated by an increasing number of small farms in the developing world. Apart from Latin America, small-scale farming has continued to be the main economic activity for the bulk of the rural labour force in major developing regions. Especially in India and China, a large number of farms has been operating increasingly smaller land. The predominance of small farms is

directly linked to the issue of global poverty – given that the majority of the world's poor relies on small-scale farming for a livelihood. Hence, the future of small farms and rural poverty are major themes that this thesis investigates.

This takes the analysis into the historic debate on the role of agriculture and small-scale farming in economic development. After a period of academic neglect in the 1980s and 1990s, there has been a fresh debate between two schools of thought: a 'neo-populist' school which relies on the old paradigm of small-farm efficiency in arguing that pro-poor growth depends on small farms, versus the 'agro-pessimist' school which takes a sceptical view of the future viability of small farms in economic development and poverty alleviation. This thesis proposes a new approach which positions itself between the 'neo-populist' and 'agro-pessimist.'

This thesis tests its hypotheses on Turkey which is a developing country where one-third of its population lives and works in rural areas. The country exemplifies how the process of rural transformation has been slow over the last 25 years. The size of its rural labour force has been growing while the agricultural sector has been stagnant, leading to the effect that the majority of 20 million people working on four million small farms have been almost left out of the process of economic development. Turkey was one of the first to experience the 'structural adjustment' programmes, so it illustrates how the 'Washington Consensus' has affected agricultural and rural development since the late 1990s. Therefore, it is expected that investigating Turkey's rural transformation would be relevant for other developing countries that have been experiencing similar challenges in their rural transformations.

The thesis is organized as follows:

Chapter II analyses major trends in rural transformation in Turkey at the country and regional levels over the last 25 years. It first analyzes trends in labour transition from agriculture and looks into the question why there has not been any substantial labour transition. Second, it investigates the process of the transformation within agriculture and carries out a factor analysis assessing why it has been stagnant. Then, from a theoretical perspective, it focuses on the process of small farm transformation defined as the differentiation of small farms within agriculture at the household level. Hence, this chapter aims at providing an overall analysis of trends in rural transformation in Turkey, setting up a background framework for the following chapters.

Chapter III takes the village of Tuz in western Anatolian which exemplifies the impact of a combination of global market trends and the ‘Washington Consensus’ on the rural transformation at the village level. The chapter first focuses on the enormous progress that the farmers of Tuz have achieved in their agricultural transformation. Next, it takes the analysis beyond the village level and investigates price trends in cotton and assesses major economic and political factors affecting prices in global and domestic markets. Then, the chapter assesses the trends of output productivity and the cost of production in cotton. Later, it turns back to the village and analyses trends in profitability at the local level. Finally, it investigates the question of small-farm differentiation through land concentration over the recent decades.

Chapter IV focuses on the case of Sakal in central Anatolia. It exemplifies the impact of unfavourable ecology on the transformation within and from agriculture. First, it examines trends of circular and permanent migration from rural to urban areas. Then, it provides a short history of the process of transition to non-agricultural activities within the village. In particular, it focuses on major factors, both of rural and urban origin, that have affected the process. It also highlights the challenges and increasing competition that non-agricultural activities face. Finally, it illustrates the major roles that non-agricultural activities play in rural economies. The chapter demonstrates the importance of labour, production and consumption linkages between and within the agricultural and non-agricultural sectors.

Chapter V takes the case of Sinan to analyse the impact of 'ascribed' inequality on the rural transformation at the village level. Political, economic and social relations between the state, landlords and peasants constitute the core of the analysis. The chapter first investigates regional trends in inequality in landownership over the last half a century. Here, it explores the effects of inequality on rural-to-urban migration and on economic development from a huge regional development project, the GAP, since 1980. In the second part, it presents Sinan, and discusses the political and economic transitions that the village has been through. It also explores a recent grassroots movement that has been initiated by the peasants. Third, in the light of the fieldwork and the recent empirical evidence, the chapter assesses the validity of some arguments about the process of scale-differentiation in the context of high inequality.

Chapter VI is the final chapter that builds up on the case studies and defines the boundaries of the agro-realist approach proposed in this thesis. It reflects on new opportunities and hopes for achieving a progress towards the completion of the rural transformation. The revolutionary biotechnological innovations with the potential of reducing ecological dependencies, new market opportunities for labour-intensive small farms, emerging developing country coalitions pursuing for a fairer global trade regime are some of the major opportunities that the chapter addresses. Then it attempts to incorporate the agro-realist approach into the framework of new social democracy. In so doing, it aims at contributing to the development of an institutional framework through which a new realistic policy approach to agricultural and rural development and the new social democracy could envisage rural transformation in the age of globalization.

Chapter II - Rural Transformation in Turkey: Labour Trap in Stagnant Agriculture

The share of the agricultural sector in Turkey's GDP has been falling steadily over the last three decades. This might have been considered as a process of structural transformation, if it had induced a substantial labour transition away from the agricultural sector. However, the actual size of the rural population in working age (15-60), the majority of whom engaged in agriculture, has increased (UNPD, 2006). This has resulted in an enormous problem of *under-employment* in rural areas. At the same time, since both land and labour productivity have not seen significant growth, the agricultural sector suffers from severe under-productivity. Hence, there are serious concerns regarding the vast majority of Turkey's rural population that seem to have been left out of the processes of economic development over the past 25 years.

The country's agricultural sector is dominated by small farms with an average size that has not changed significantly over the recent decades. Such predominance is directly related to the process of labour transition from the agricultural to non-agricultural sectors. Since it has been accompanied by the absence of any substantial growth in the agricultural sector, the income gap between agricultural and non-agricultural activities has been widening. This is reflected in the fact that more than one third of those employed in the agricultural sector are below the national poverty line, representing by far the highest rate of poverty among all sectors (World Bank,

2005b, p. 98). Hence, the future of small farms, around four million, poses a fundamental challenge for Turkey's overall economic development.

This chapter attempts to analyze why the dual process of transformation both *from* and *within agriculture* has been stagnant in Turkey. What are the factors operating at the macro level that have prevented the country making progress in its rural transformation? Why has it experienced an asymmetrical path whereby the structure of its economy moved away from agriculture without this leading to labour transition from the sector and scale differentiation within the sector? The chapter assesses the impact of various factors operating at different dimensions. Factors in relation to demography, sectoral labour absorption capacities, human capital, ecology, technology, commodity markets and politics and policies have affected the different dimensions of the process at the national, regional and local levels.

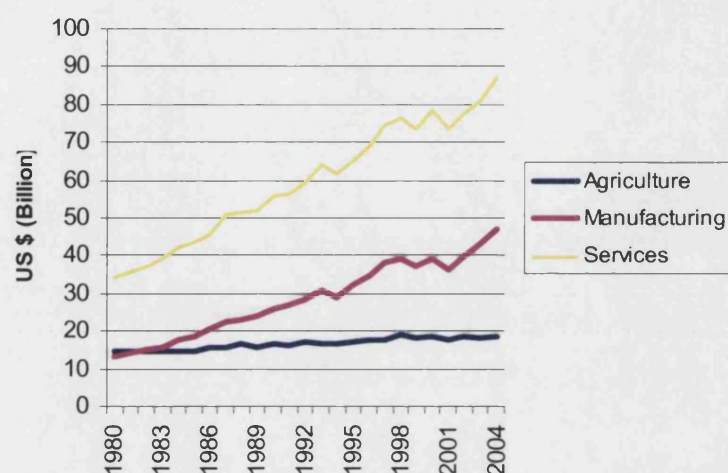
This chapter is organized as follows. It first analyses the trends in the transformation from agriculture at the country level over the past 25 years. It investigates the major factors that have affected the process of labour transition. Second, it goes into the assessment of the process of the transformation within agriculture, and carries out a factor analysis analyzing why it has been stagnant. Then, from empirical and theoretical perspectives, it focuses on the dominance of small farms and the level of scale differentiation in Turkish agriculture. This introduction would provide an analysis of trends in rural transformation in Turkey which would set up a background for subsequent chapters.

2.1 Transformation from agriculture

Similar to the vast majority of developing countries, although manufacturing and services sectors have continuously grown, the size of the rural labour force in Turkey has not seen any substantial decline. As is shown in Figure 2.1, between 1980 and 2004, the contribution of the services sector to Turkey's GDP rose from US\$ 34 billion to US\$ 87 billion, while the manufacturing sector's tripled, from US\$ 13 billion to US\$ 47 billion (SPO, 2006). However, the level of labour transition from agriculture to non-agricultural sectors has not been considerable.

The rural population has seen a marginal decline, although the size of rural population of working-age (15-59) has actually increased. In 1980, approximately 26 million people lived in rural areas (out of 46 million in total). By 2000, it had slightly decreased to 24 million, and has remained stable since then (FAOSTAT, 2006). Meanwhile, the size of economically active population in agriculture grew from 11.5 million in 1979-81 to 14.8 million in 2004 (see Figure 2.2) (FAO, 2007). Due to fertility and mortality decline, the share of rural population below the age of 15 dropped from 42 per cent in 1980 to 32 per cent in 2000, leading to an increase in the share of population of working age (SIS, 1984a; SIS, 2003c). This in turn has resulted in a trend whereby the rural population slightly decreased while the size of population in agriculture has actually risen. Although, modern sectors have grown significantly, this has not led to a fall in the absolute size of agricultural labour.

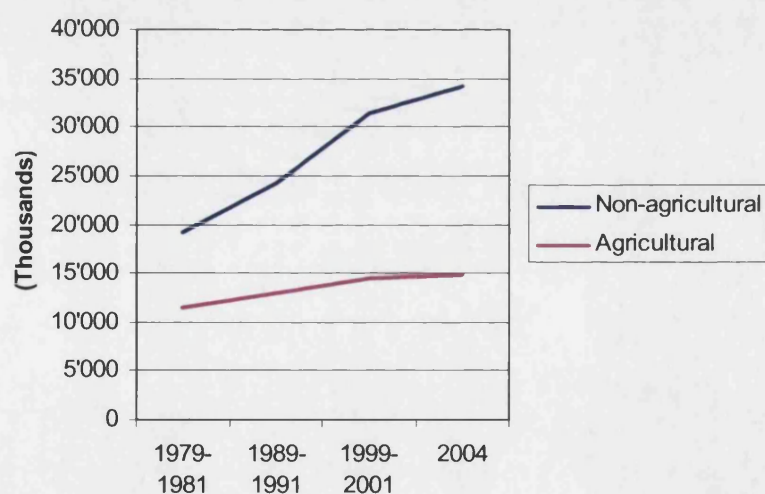
Figure 2-1 Net GDP growth in Turkey by sector at fixed prices,* 1980-2004



Source: State Planning Organization (SPO, 2006).

* US \$ (1987 prices, 1 US \$ = 855.69 TL)

Figure 2-2 Economically active population in Turkey, agricultural vs. non-agricultural, 1979-1981 - 2004

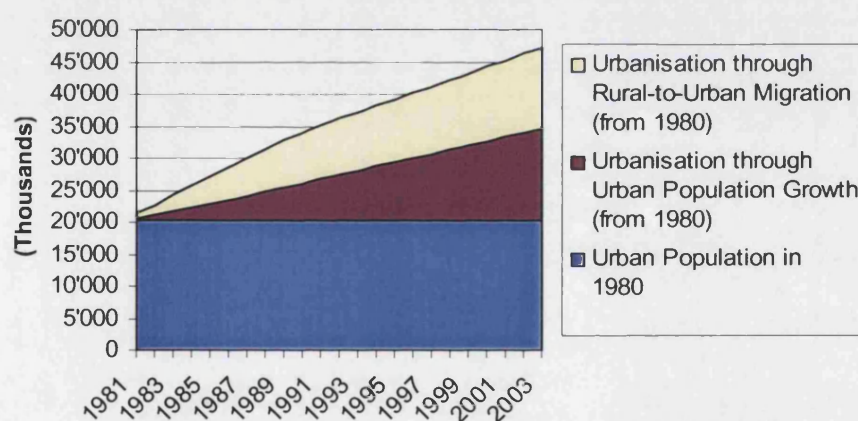


Source: FAO Statistical Yearbook 2004 (FAO, 2007).

The process of urbanization has continued, resulting in a rapid increase in the size of the urban labour force. Urban population increased from 20 million in 1980 to 47 million in 2003, while the population of working age increased even more rapidly,

from 11 million in 1980 to 31 million in 2005 (UNPD, 2006).¹ This process has been increasingly driven by urban population growth itself. The contribution to urbanization of rural-to-urban migration has become relatively smaller. As the urban population grew, its marginal contribution to urbanization has increased while, at the same time, the pace of rural-to-urban migration slowed down over the last 15 years (see Figure 2.3). The level of net migration decreased from 1 million people per year in the early 1980s to 300,000 by the early 1990s (see Figure 2.4). The enormous rise in the urban labour force (mainly due to urban population growth itself) has inevitably diminished the urban demand for labour from rural areas.

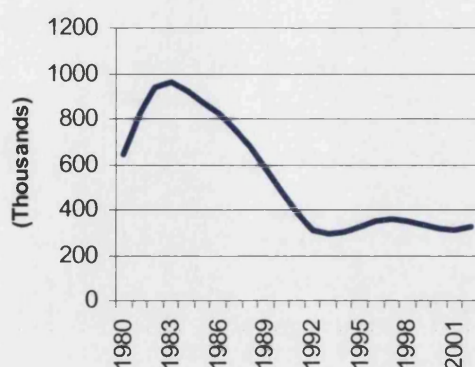
Figure 2-3 Sources of urbanisation in Turkey, 1980-2003



Source: Author's calculation based on (FAOSTAT, 2006).

¹The data in relation to the size of rural population of working-age are derived from the total population of working-age proportioned by the share of rural population. It should be noted that this practice slightly overestimates the size of rural population of working-age. This is due to the fact that the rural fertility rate is slightly higher than the urban fertility rate which lowers the proportion of rural population above the age of 15.

Figure 2-4 Net rural to urban migration in Turkey*, 1980-2003



Source: Author's calculation based on (FAOSTAT, 2006).

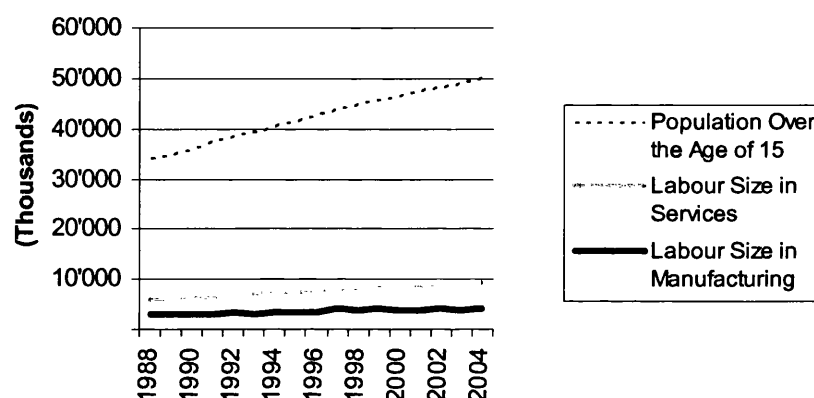
*The net amount of rural-to-urban migration is based on an arithmetic calculation. For each year (from 1980 to 2003), the country's total population growth is calculated. Then it is applied to that particular year's rural population as if there would not be migration. The difference between the actual size and the size based on the no-migration scenario is considered to be the net migration. This practice slightly underestimates the amount of migration, due to the fact that the natural growth rate of the rural population (i.e. without migration) is higher than the growth rate of total population.

2.1.1 Low absorption capacity in non-agricultural growth

The economic factors that affect the process of labour transition have not been favourable either. The employment elasticity of non-agricultural growth has been low, leading to substantially low levels of labour participation and high unemployment. Between 1988 and 2004, although the manufacturing and services sectors' contribution to GDP almost doubled, they created 4.5 million jobs, representing an increase of 50 per cent in total (SIS, 2006a). The size of the labour force in the services sector rose from around 6 million in 1988 to 9.3 million in 2004. The number of labourers in the manufacturing sector increased from 2.8 million to 4 million (SIS, 2006a). In the same period, however, the size of population above the age of 15 increased by 13.5 million in urban areas and 2.5 million in rural areas, 16 million in total. As Figure 2.5 below indicates, the pace of employment creation in the non-agricultural sector was even below the level at which it could absorb the

extra urban population entering the labour force, let alone absorbing the ‘surplus’ labour from the agricultural sector.

Figure 2-5 Non-agricultural Employment Trends in Turkey, 1988-2004



Source: State Institute of Statistics, Household Labour Force Survey (SIS, 2006a)

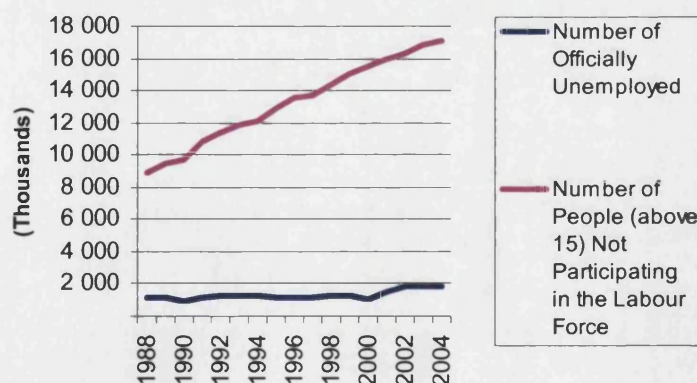
* 1988 is the first year that sectoral employment data are available based on the measurement method that is currently used. The construction sector is included into the service sector.

Employment elasticity of the services sector has been higher than that of manufacturing. Every additional US \$ 1 billion contribution to GDP created around 94,000 jobs in services, 50,000 jobs in the manufacturing sector.² The difference was mainly due to the fact that labour productivity in the manufacturing sector grew at a relatively higher rate compared to the services sector. Nevertheless, the difference between their labour productivity is smaller than the difference between their employment elasticity. Therefore, the growth in the services sector has absorbed more additional labour than the growth in the manufacturing sector.

² Based on author's calculations on the sectors' marginal contribution to GDP and net increase in the labour size for each sector between 1988 and 2004. Similar labour elasticity differences between the two sectors hold for smaller intervals within the period.

The obvious consequences of the huge mismatch between population growth and limited absorption capacity of the non-agricultural sector are unemployment and low labour participation. According to official data, the number of unemployed rose from 1.1 million in 1988 to 1.8 million in 2004, representing a tiny increase of 0.7 million people (SIS, 2006a). Apparently, this increased the unemployment rate from 13.3 per cent to 13.6 per cent. However, the number of people above the age of 15 who are not officially participating in the labour force has risen enormously. As is shown in Figure 2.6 below, the number of people not included in the urban labour force – mainly women and those with low educational background - increased by 8 million (from 9 million to 17 million) in the same period (SIS, 2006a). The mismatch between population growth and limited employment creation has resulted in low levels of labour participation – disguised unemployment – in urban areas which is masked by the official unemployment data.

Figure 2-6 Unemployment and labour participation in urban areas in Turkey, 1988-2004

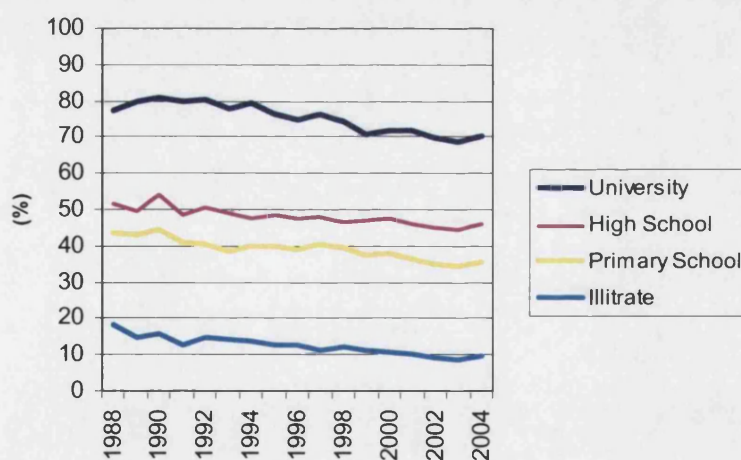


Source: State Institute of Statistics, Household Labour Force Survey (SIS, 2006a)

The low level of educational attainment of the rural labour force constitutes a major obstacle in labour transition from the rural to the urban sectors. Only 36 per cent of the urban population (above 15) with primary education had formal employment in

2004, indicating that the urban market for low-skilled labour is already saturated (SIS, 2006a). This figure was 46 per cent for those having high school education. The highest percentage of employment, with 70 per cent, was among those who had university education (see Figure 2.7). However, the educational-base of the rural labour force is low. As is shown in Figure 2.8, only two per cent of the rural population (above 15) had university education while only 10 per cent had high school education in 2004.³ This means that the vast majority of the rural labour force has to compete in the lower segments of the urban market where there is already an over-supply from the urban labour force itself. Therefore, the chances of finding urban employment for an average labourer from rural areas are small.⁴

Figure 2-7 Percentage of employed in urban population above age 15 by educational background in Turkey, 1988-2004

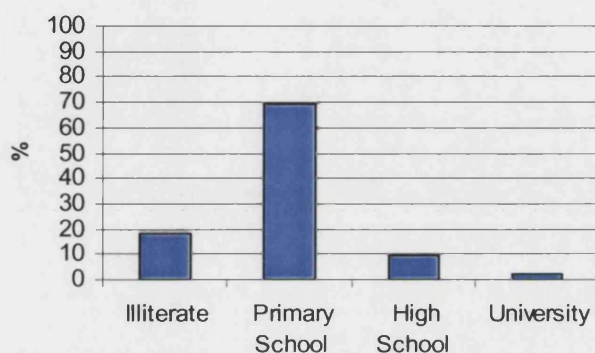


Source: Author's calculation based on (SIS, 2006a).

³ In urban population (above 15), on the other hand, nine per cent had university education and 22 per cent had high school education in 2004 (SIS, 2006a).

⁴ The chances get even smaller, as the urban sector modernizes and reduces its demand for labour with low education (i.e. the urban sector's *modernization elasticity of demand for low-skilled labour* is low.)

Figure 2-8 Distribution of rural population (above 15) by education in Turkey, 2004



Source: Author's calculation based on (SIS, 2006a).

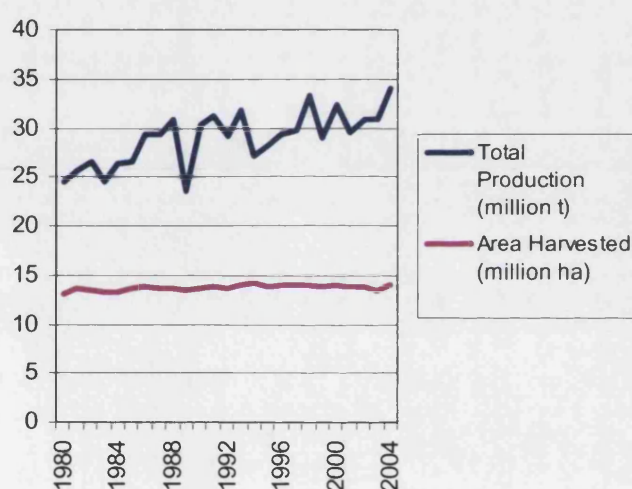
2.2 Transformation within agriculture

The south-eastern part of the region where Turkey is located is in the Fertile Crescent, where farmers have thousands of years of experience in cereal production. Yet, the average yields of 2.2 tons per hectare in 2004 (FAOSTAT, 2006), were only slightly above what it was 10,000 years ago (Araus, et. al, 2001. p 341). There are regions in the country, such as parts of central Anatolia, where yields may even fall below that level. Since the bulk of the country's cultivable land has been devoted to low-value staple food production, the second dimension of the rural transformation, *transformation within agriculture*, which involves a process of agricultural modernization through improvements in yields and a transition from low to high value cropping patterns, has been stagnant in Turkey.

Since 1980, the size of arable land has remained around 26-28 million hectares, and half of it, around 13 million hectares, has been consistently devoted to cereals (see

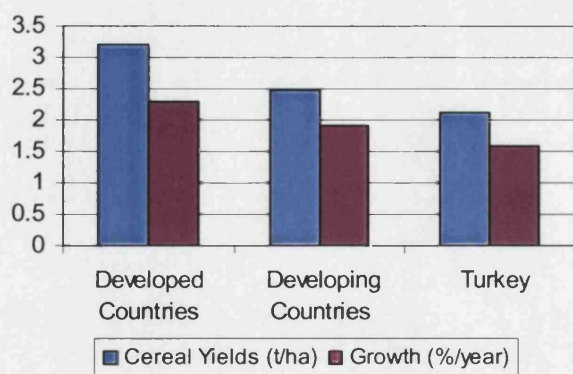
Figure 2.9). Wheat production was the most prominent among cereals, covering around 9 million hectares. Barley came second with around 3 million hectares; maize, rye and oats followed. However, as is shown in Figure 2.10, the level of growth in yields has been slow, amounting to 1.5 per cent per year between 1980 and 2004 which was well below the world's average (FAOSTAT, 2006). Hence, land productivity in major staple foods is historically low in Turkey, and it has risen only marginally over the past 25 years.

Figure 2-9 Cereals production in Turkey, 1980-2004



Source: FAOSTAT, 2006.

Figure 2-10 Average cereal yields and growth rate, 1980-2004



Source: Author's calculation based on (FAOSTAT, 2006).

The process of transition to higher value cropping patterns has also been slow. Around 13 million hectares of the country's 26 million hectares of arable land have been devoted to low-value cereal production. The volume of relatively high-value industrial crops, vegetables and fruits has been small. Industrial crops, such as cotton, sugar beet and tobacco covered five per cent of the total area in 2004. Fibre crops, mainly cotton, covered 0.6 million hectares. The area of fruits and vegetables has remained almost the same at around 1.5 million hectares (SIS, 2005).

Although it has been slow, the importance of the transition from cereals to high-value industrial crops, vegetables and fruits is evident in the sector's output value trends. Although, 63 per cent of the total area under agricultural production was devoted to cereals, it contributed only 23 per cent of the total output value produced by the sector in 2003 (see Table 2. 1 below). On the other hand, vegetables contributed almost 25 per cent of the total output value, although they covered only four per cent of the land. Similarly, the share of fruits was 31 per cent, while their share of land was only 12 per cent (SIS, 2005). As such, one of the most fundamental structural problems of Turkish agriculture has been the slow pace of the transition from low-value cereals to fruits, vegetables and industrial crops that generate relatively higher output in value terms.

2.2.1 Value production

In output value terms, the growth performance of the agricultural sector has been poor over the past 25 years, especially since the early 1990s. The sector grew by an average of 1 per cent per year since 1980, and 0.9 per cent since 1990. Its

contribution to total output has increased by only 25 per cent since 1980 and 12 per cent since 1990 (at fixed prices) (SPO, 2006).

Table 2-1 Agricultural area and output value in Turkey, 2003

	Area harvested		Output value		
	Area (Million ha)	Distribution (%)	YTL (Billions)	US\$* (Billions)	Distribution (%)
Field Crops	17.9	84	17.9	12.0	44
Cereals	13.4	63	9.5	6.3	23
Pulses	1.5	7	1.5	1.0	4
Industrial crops	1.3	6	3.5	2.4	9
Oil seed	1.4	6	0.8	0.6	2
Tuber crops	0.3	1	2.6	1.7	6
Vegetables	0.8	4	10.2	6.8	25
Fruits	2.7	12	12.5	8.4	31
Total	21.4	100	40.6	27.2	100

Source: State Institute of Statistics (SIS, 2005).

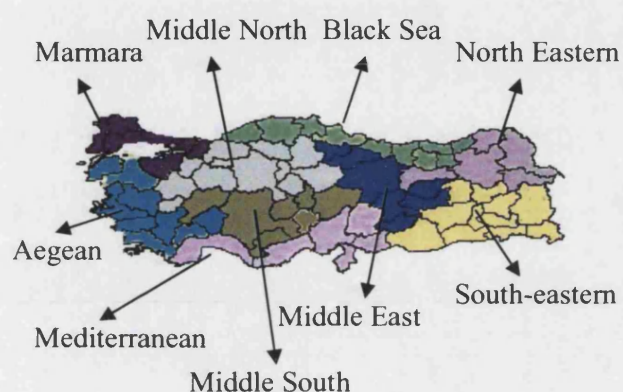
* At current prices based on monthly average exchange rate in 2003, for US\$ 1 = 1.49 YTL (SPO, 2006).

There are huge variations at the regional level, however (see Figure 2.11 for the map of Turkey by agricultural regions). The value productivity – average value produced on one hectare – was approximately US\$ 600 at the national level in 2001(SIS, 2003a).⁵ The average at the regional level ranged between US\$ 270 per hectare (in North-eastern Anatolia) and US\$ 1200 per hectare (in the Mediterranean region). As is shown in the Figure 2.12 below, the variation was partly due to the differences in cereal yields, but mostly to variations in the contributions of fruit and vegetables. In regions with value productivity below the national average, cereals contributed to more than half of the total. On the other hand, in regions that were above the national average, cereals' contribution was only around 30 per cent of the total, while the rest

⁵ The measure of value productivity – value produced on a unit of land – offers a comprehensive measure of productivity in agriculture. It is calculated by multiplying production quantity by price in a given period of production. In this way, factors like yields, fallow rates, crop patterns and price variations are incorporated into the productivity measure.

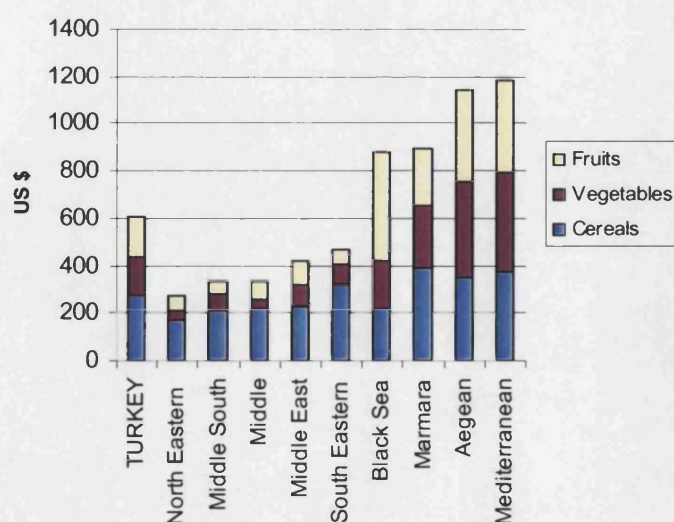
came from fruits and vegetables. Hence, the regions that had achieved the transition from low-value cereals to higher-value crops, fruit and vegetables were performing substantially better than those that had not.

Figure 2-11 Map of Turkey by agricultural regions



Source: Based on (SIS, 2003a) and FAO Country Profiles (FAO, 2005)

Figure 2-12 Output value productivity (US\$/ha) in Turkey by region, 2001



Source: Author's calculation based on (SIS, 2003a).

2.3 Determinants

This section analyses five major obstacles that have prevented the process of agricultural transformation from making substantial progress. First, there are ecological obstacles determining cropping patterns and yields (given the level of technology) at the local level. Second, there is a marketing obstacle arising from the fact that the income elasticity of demand for staple foods is low which discourages agricultural growth. The third factor is a price obstacle which is in operation at global and national levels. Agricultural prices have been going down over the last three decades, and the terms of trade have been unfavourable for agricultural commodities. The fourth obstacle is 'ascribed' inequality in relation to the distribution of income generating assets in rural areas, which hinders agricultural development in one particular region. The fifth obstacle is political and institutional at the national level. The performance of the sector has been severely affected by unfavourable macro-economic policies, and related 'structural adjustment' programmes that have weakened institutional capacities that are vital for the agricultural sector.

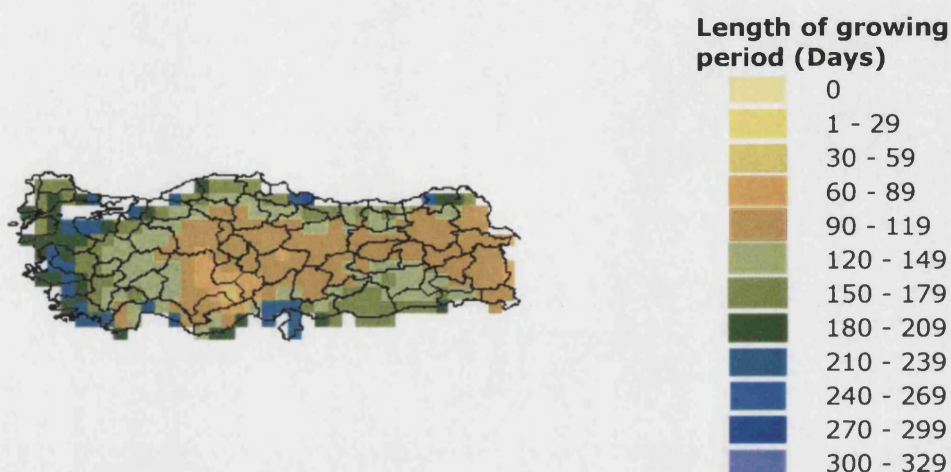
2.3.1 Ecological dependency

Variations in major ecological conditions largely correspond to those in output value productivity across regions (see Figure 2.12 above). There are four key ecological variables that need to be distinguished in analyzing Turkey's complex ecological system: the structure of terrain, temperatures, the level of precipitation, average length of the growing period. In eastern Anatolia, mainly due to high altitudes (above 1500 m), low temperatures (averaging -13°C in winter, and 17°C in summer) and cold stress, ecological conditions are not favourable. In the interior and south-eastern

parts of the country, low precipitation (275 to 375 ml/year) is a major constraint in large cultivable areas. On the other hand, the coastal plains along the Aegean and Mediterranean Seas have large areas of low-land enjoying favourable temperatures (with the average of 9°C in winter, and 29°C in summer) and moderate rainfall (ranging between 580 and 1,300 mm/year) which in turn offer superior agricultural potential (TSMS, 2004).

The average length of the growing period - calculated based on the difference between water inflows (i.e. precipitation) and outflows (i.e. evapotranspiration) - reflects the variations in yields and cropping patterns across the regions. As is shown in Figure 2.13, the average length of growing period is below 120 days in the large parts of central and eastern Anatolia, where the climate is suitable for mainly cereal production. Yields depend on the timing and quantity of precipitation. The Black Sea region, South-eastern Anatolia and the western parts of central Anatolia have average growing periods of between 150 and 200 days. These areas are suitable for cereals which can be grown at relatively higher yields. The western Anatolia and south of the Mediterranean region enjoy the longest growing period around 200 to 240 days a year. These areas are most suitable for high yield cereals, industrial crops, fruits and vegetables. Hence, while the average length of the growing period offers high agricultural potential in the coastal strips and South-eastern Anatolia, it is not as favourable for the rest of the country.

Figure 2-13 Map of length of growing period (days) in Turkey



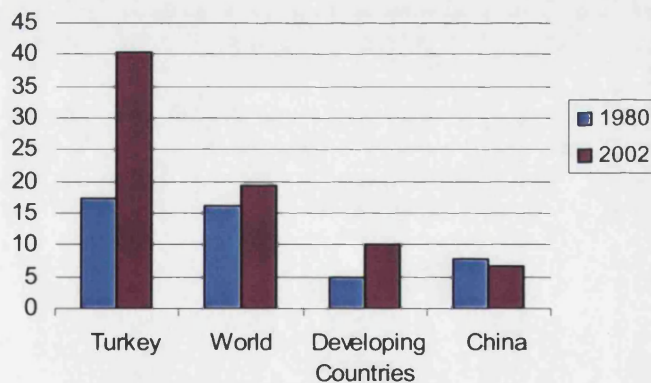
Source: FAO Country Profiles (FAO, 2005)

2.3.2 Technological asymmetries

The main reason why Turkey has not managed to reduce its ecological dependency over the past 25 years is its slow progress in technological innovation and adaptation and in ecology-enhancing infrastructure. However, rather than a total lack of progress, Turkey illustrates the case of an asymmetrical development in the different components of agricultural technology. It has made slow progress in chemical and biological technological development, while continuously mechanizing its agriculture (which implies over-mechanization). On the other hand, the size of ecology-enhancing infrastructure, i.e. irrigation, has enlarged moderately. As such, the Green Revolution, described as a package of high yielding crop varieties, sufficiently used chemical fertilizers, reliable water supply and small-scale mechanization has been asymmetrically implemented, which has in turn generated only a little progress in overcoming ecological constraints in agriculture.

The extent of mechanical technology has grown more rapidly than any other components of Turkey's 'Green Revolution'. The total number of tractors rose from 440,000 in 1980 to almost 1 million in 2002 (FAOSTAT, 2006). This meant that for every 1000 hectares of arable land, there were 17 tractors in 1980 and 40 in 2002. As is illustrated in Figure 2.14, number of tractors per 1000 hectares is significantly higher in Turkey as compared to the both world's and the developing countries' averages.⁶ Given that the average farm size is slightly less than six hectares, there is a concern for over-mechanization, or to put it more accurately 'over-tractorization' in Turkish agriculture.

Figure 2-14 Number of tractors per 1000 hectares, 1980 vs. 2002

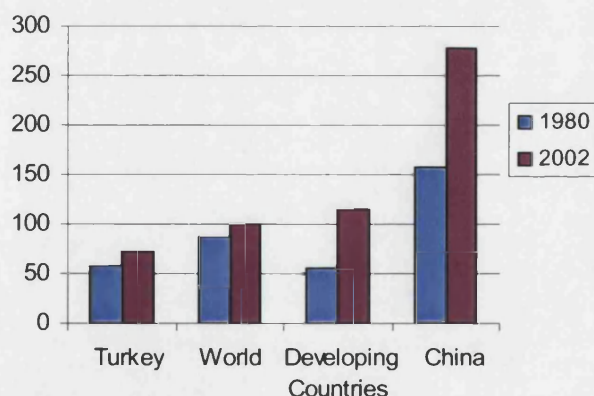


Source: FAOSTAT, 2006

⁶ Between 1980-2002, the world's average increased from 16 to 19; the developing countries' average doubled from five to 10 (FAOSTAT, 2006).

The use of chemical fertilizers, on the other hand, grew slowly, from an already low base of 57 kg/ha in 1980 to 73 kg/ha in 2002 (see Figure 2.15).⁷ As for new seed varieties, different types of semi-dwarf cereals have been introduced since the 1960s, however, the extent of research and development in bio-technology has been limited. On the other hand, the share of irrigated area increased from 11 per cent in 1980 to 22 per cent in 2002. As is shown in Figure 2.16, although the pace of this growth was faster than in developing countries, the share of irrigated land was still below the average of developing countries (26 per cent) in 2002 (FAOSTAT, 2006). Hence, Turkey's agricultural sector has been experiencing an asymmetrical technological progress through over-mechanization while seeing only a small improvement in fertilizer use and in the extent of irrigation, which in turn has been inadequate to make a significant impact in overcoming its ecological dependency.

Figure 2-15 Average fertilizer consumption* (kg/ha), 1980 vs. 2002

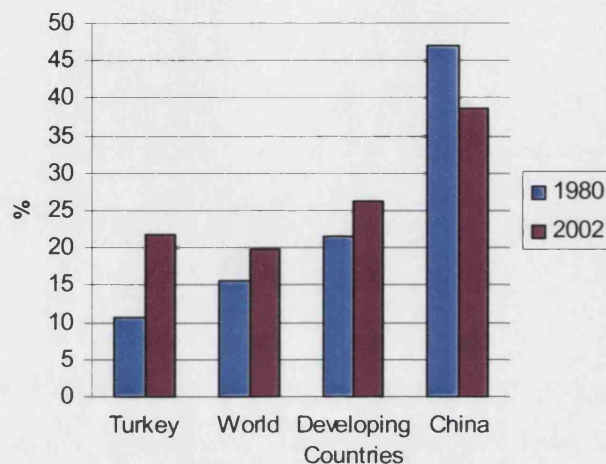


Source: Author's calculation based (FAOSTAT, 2006).

* Based on total fertilizer consumption divided by total acreage of arable land.

⁷ This was below the average of developing countries, 115 kg/ha in 2002. (author's calculation based on total fertilizer consumption divided by acreage of arable land) (FAOSTAT, 2006). However, China which is the only country to have made remarkable progress in its yields and product diversification, increased its fertilizer consumption from 158 kg/ha in 1980 to 278 kg/ha in 2002.

Figure 2-16 Share of irrigated land in total arable land, 1980 vs. 2002



Source: FAOSTAT, 2006

2.3.3 Low income elasticity

There is also an economic obstacle operating through the income and price elasticity of demand for agricultural goods, which constrains the process of transformation within agriculture. The negative impact of low income elasticity of demand for staple foods leaves the agricultural sector behind non-agricultural growth. Similarly, the low price elasticity of demand discourages sectoral growth. On the other hand, the demand for high-value (high income and price elasticity) agricultural commodities is determined by the level of overall economic growth and by income distribution at the national level. However, due to the relatively unequal distribution of income and moderate growth in the overall economy, the size of the country's high-income consumer base has remained thin, failing to provide adequate stimulation for the transition from low- to high-value cropping patterns.

The country's GDP grew by 5.3 per cent in the 1980s and 3.1 between 1990 and 2003 (World Bank, 2005a). As a result of the obvious effect of low income elasticity, the demand for cereals has grown only marginally since 1980. Annual cereal consumption increased from 25 million tons in 1980 to slightly less than 35 million tons in 2004, representing an annual growth of 1.3 per cent.⁸ Expectedly, this indicates that the demand for cereals increased significantly slower than the rate of economic growth. On the other hand, the demand for agricultural commodities with relatively higher income elasticity has grown at only a moderate but higher rate. For instance, the production of vegetables grew by 2.7 per cent per year between 1980 and 2004.⁹ The level of non-agricultural growth has not been big enough to generate a high demand stimulus for agricultural growth.

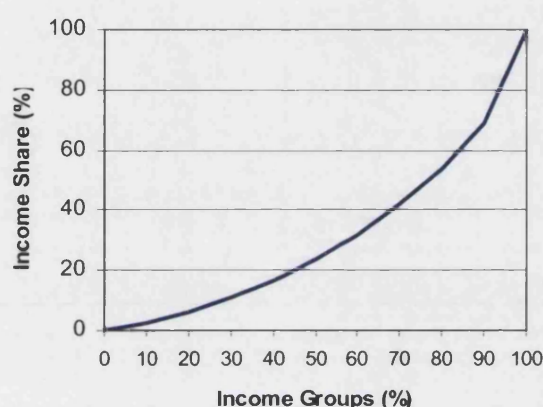
The distribution of the country's disposable income has led to a demand structure which is not conducive for the transformation either. Although the pattern of income distribution has been getting less unequal over the last 10 years, it is still relatively skewed (see the Lorenz curve below, Figure 2.17). In 2004, the income share of households in the highest income quintile was more than 45 per cent, while the share of those in the lowest quintile was only six per cent. The lowest three quintiles combined, i.e. 60 per cent of the population, had an income share of only one-third of the total (SIS, 2006b). This unequal distribution creates a dual demand structure: on the one hand, large percentages of low-income consumers provide a wide but shallow market for agricultural commodities, mainly for staple foods. On the other

⁸ Author's calculation based on (FAOSTAT, 2006). The consumption figures are based on domestic production combined with the amount of net trade.

⁹ However, the production of meat increased from 0.7 million ton in 1980 to 1.6 million ton in 2004, amounting to an annual growth rate of 3.6 per cent. In particular, poultry meat and egg production have grown rapidly, with an average annual rise of almost six per cent (based on author's calculation using FAOSTAT data, 2006).

hand, a small percentage of high-income consumers provide a deep but a small market for high-value (high income elasticity) goods. Therefore, the unequal distribution of disposable income slows down the stimulating impact of overall economic growth on the transformation within agriculture.

Figure 2-17 Income distribution in Turkey, 2004



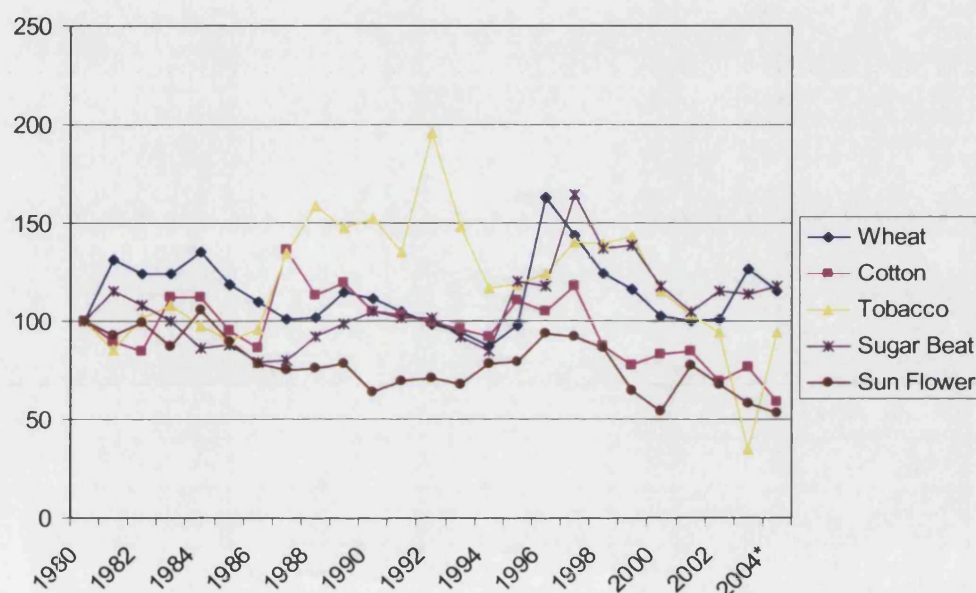
Source: State Institute of Statistics (SIS, 2006b)

2.3.4 Low margin – low investment – low growth trap

Falling prices and increasing cost of production have reduced the incentive for growth in the sector. As is shown in Figure 2.18 below, since the second half of the 1990s, they have fallen rapidly, although the real prices of major crops such as wheat cotton, tobacco increased in the 1980s. In the period between 1997 and 2003, for almost all major crops, prices fell below the levels of 1990, while for some of them, even below the levels of 1980. For instance, wheat prices dropped to almost their 1980 level, cotton and sunflower prices fell to a level even below the level of 1980. This partly reflected the long-term price trends in world markets where real prices have declined by two per cent per year on average over the last 40 years (FAO, 2004,

p. 12). Declining commodity prices both in domestic and world markets have put pressure on output value generated in the agricultural sector.

Figure 2-18 Real prices of major agricultural commodities in Turkey, 1980-2004 (1980=100)**



Source: Author's calculation based on (SPO, 2006)

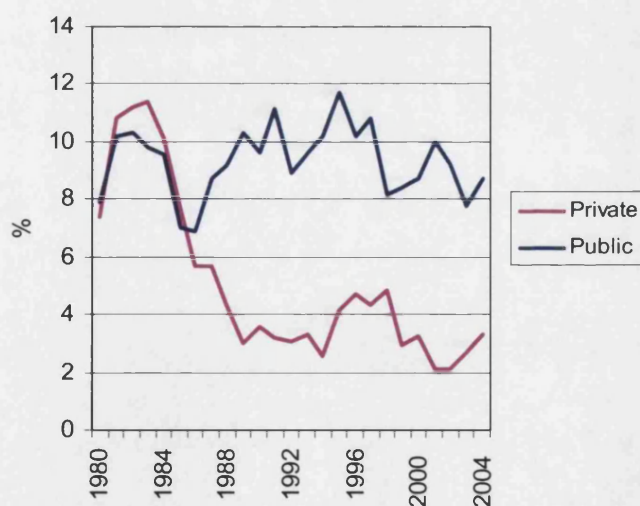
* Estimate price

** Nominal prices have been deflated by the GNP deflator (1987=100) based on (SPO, 2006).

The cost of major agricultural inputs has gradually increased, which has led to a decline in the profitability of the sector. The cost of fuel, fertilizer and pesticide often increased at rates above the inflation rate over the last 15 years. The rise in diesel prices was around 10 per cent above the inflation rate since 1990. Fertilizer prices fluctuated wildly while on the whole staying on average 18 per cent above the inflation rate between 1991 and 2001 (MARA, 2004). Hence, encountering increasing costs accompanied by price falls, margins have been squeezed in the agricultural sector in general.

The level of private and public investments going into the sector has also been deteriorating. The share of agriculture in private gross fixed investments has gone down noticeably. It fell from 11 per cent in 1982 to 2.1 per cent in 2002, which clearly shows that the private sector has lost its interest in investing in the sector. On the other hand, the share of agriculture in public investments fell too, from 10.2 per cent in 1980 to 8.7 per cent in 2004 (see Figure 2.19) (SPO, 2006). The sector's share in gross fixed investments has been consistently below the level of its share in the country's GDP. Since low levels of investments diminish growth even further, it is clear that the sector has been suffering from a downward spiral of 'low margin – low investment – low growth'.

Figure 2-19 Share of agriculture in gross fixed investment in Turkey, 1980-2004



Source: State Planning Organization (SPO, 2006)

2.3.5 Marketing chains

There have been some substantial changes in the food retail sector without this having major structural impacts on the agricultural sector in general, small farms in particular. Since the 1980s, with a rapid acceleration the 1990s, the share of supermarkets in the total retail sector has been growing. From 1999 to 2003, supermarkets (100-2.500 m²) and hypermarkets (over 2.500 m²) increase their retail share from around 25 per cent to 40 per cent of the food sector (see Table 2.2 below) (Sirtioglu, 2004, p. 3).¹⁰ Both demand and supply-related factors have been attributed for the increasing diffusion of supermarkets (Reardon, et al., 2003, p. 1141). Urbanization, increasing size of per capita income and the middle class and rising demand for processed food are some of the demand-related factors, while technological innovations in supply logistics and knowledge transfer constituted the major supply-related factors (Reardon, et al., 2003, p. 1141) which have played part in Turkey.

Table 2-2 Retail food sector trends in Turkey

	Market Share (%)				
	1999	2000	2001	2002	2003*
Hypermarkets (over 2,500 m ²)	6.5	8	9.5	9.6	10
All supermarkets (100-2,500 m ²)	17	20	25	27.5	31
Markets (50-100 m ²)	12.5	10	9.5	9.4	9
Small stores (< 50m ²)	49.5	48	42	40.5	36
Others	14.5	14	14	13	14

Source: (Sirtioglu, 2004, p. 3) cited in Van Berkum (2005, p.119)

* estimate

However, unlike other developing regions such as Latin America and South-east Asia, the food industry has not been able to attract considerable level of foreign direct investment (FDI) in Turkey. Between 1980 and 2003, the total FDI going into

¹⁰ Cited in Van Berkum (2005, p.119).

the agricultural sectors amounted to US\$ 600 million, averaging US\$ 25 million a year. This constituted 1.8 per cent of total FDI entering Turkey (Turkish Treasury, 2006). Although the number of foreign companies operating in the food and beverages sector has been increasing in recent years, their presence has remained minor. There were eight foreign companies in 2001, 50 in 2004, which was only two per cent of all foreign companies operating in the country (Turkish Treasury, 2006). Thus neither the production nor the retailing dimension of the agricultural sector has attracted substantial amount of FDI.

Similarly, contract farming has not become widespread to have significant impact on the agricultural sector either (Van Berkum, 2005, p.121). This is because the production, processing and marketing channels are so fragmented and diverse supermarkets usually purchase their fruits and vegetables from local and central wholesale markets and shippers (Van Berkum, 2005, p. 123). The existing quality and safety requirements are not highly stringent in terms of both legal regulation and consumer choice (Codron, et al., 2004, p. 597). Hence, the backward integration of retailers into the farm production function through contracting has not been developed so as to have significant impact on small farms (Codron, et al., 2004, p. 601).¹¹ Therefore, although the structure of the food market has been changing due to the increasing diffusion of supermarkets, which has been mainly driven by domestic investments, this has not (yet) led to a substantial structural change in the agricultural sector.

¹¹ However, there are some successful producer cooperatives engaging in contracts with large supermarkets operating in Turkey and abroad (Codron, et al., 2004, pp 601-602).

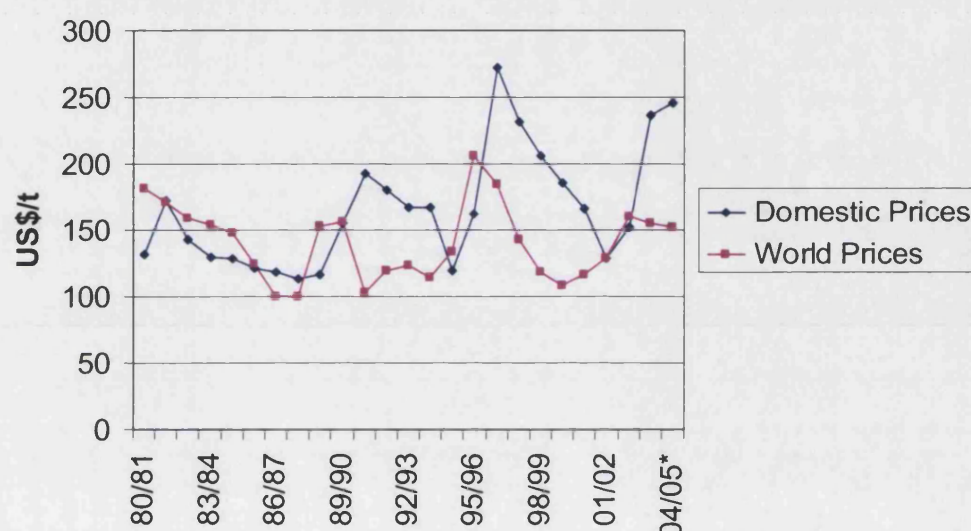
2.3.6 Little integration into world markets

Global agricultural trade has played a little role in Turkey's agricultural transformation. Between 1990 and 2004, the total volume of agricultural exports increased from US\$ 3.3 billion to US\$ 6.5 billion, while imports rose from US\$ 2.8 billion to US\$ 6.1 billion (WTO, 2006b). Hence, although its exports increased, Turkey's trade surplus in agriculture diminished. The share of agricultural trade in the economy's merchandise trade was small too. In 2004, the share of exports in total merchandise exports was 10 per cent; the share of imports was six per cent (WTO, 2006b). Fruit and vegetables account for more than half of the exports. On the other hand, oil seeds, skin and cotton imports constitute more than half of the total imports.

The volume of Turkey's exports is substantially low in relation to its comparative advantages in world markets. Based on 'standard international trade classification' used by the OECD, Turkey has one of the highest comparative advantages in high-value fruits, nuts and vegetables. In 2004, among 30 members of the OECD, it ranked third in edible fruits and nuts, sixth in edible vegetables (OECD, 2006b). Yet, its market share in OECD vegetable and fruit markets was only two and seven per cent, respectively. On the other hand, it has one of the lowest comparative advantages in cereals, ranking in the 21th position (OECD, 2006b). However, it does not import significant quantities of these products either. In the case of wheat, for instance, although domestic prices have been consistently above world prices since the early 1990s (except 1994 and 2001 financial crisis) – almost twice as high in some periods (see Figure 2.20) – the country has only imported small amounts of

wheat to meet its short-term supply shortages.¹² In sum, Turkey is neither utilizing its full potential in world export markets where it has strong comparative advantage, nor is it benefiting from cheaper supply opportunities in commodities where its comparative advantage is low.

Figure 2-20 Wheat prices (nominal), Turkey vs. World, 1980-2004



Source: For world prices (OECD, 2006c); for domestic prices (SPO, 2006).

* Estimate price

Turkey's trade policies are regulated by preferential agreements with trading partners and multilateral (WTO) commitments. Although the country has been in the EU Customs Union since 1996, this does not cover agricultural commodities, except highly processed food products. The country benefits from its 1963 Association Agreement with the European Union giving a certain degree of trade preference to Turkey for agricultural products. However, Turkey continues to face *ad valorem* tariffs for a range of major products such as sugar and cereals and some substantial seasonal *ad valorem* tariffs for some fruits and vegetables. Turkey determined its

¹² It imported around 1 million tons in 2004, representing less than five per cent of domestic production (FAOSTAT, 2006)

agricultural tariffs on the basis of the Uruguay Round Agreement on Agriculture after it joined the WTO in 1995. As a developing country, it committed itself to reduce its tariffs by 24 per cent on average until 2004. Then, it gradually shuffled its domestic support measures towards non-trade distorting ones by shifting its amber box domestic support subject to reduction commitments, to the green box subsidies that are not subject to reduction commitments (Akder, 2007).

As for Turkey's own trade barriers, the simple average of its bound rate is relatively high, slightly more than 60 per cent, yet the difference between its bound rates and applied tariff rates are relatively small. Quite a large proportion of its bound tariffs, almost one-third of the total, are higher than 50 per cent (OECD, 2000). The highest tariff rates, most of them three digit, are applied to major crops such as cereals, meat, dairy products, sugar and tobacco.¹³ For instance, the bound rate is 180 per cent for wheat, barley and maize, 148 per cent for tobacco, 135 per cent for sugar. On the other hand, the lowest rates are applied to vegetable oil of which the country is a net importer and to raw materials, such as cotton, that are processed to be exported back to world markets (Cakmak and Akder, 2005, p.109).

As for the applied rate, the average is around 40 per cent, ranging from zero per cent for cotton to more than 200 per cent for meat products (Cakmak and Akder, 2005, p.113). However, for major cereals the gap between bound tariffs and applied rates are huge (for wheat, for instance, 180 per cent vs. 40 per cent) which implies that the

¹³On the other hand, almost 45 per cent of its bound tariff lines are between 10 and 20 per cent, and it does not provide any significant duty free access, while almost 20 per cent of its tariff lines are below 10 per cent (OECD, 2000).

government holds substantial power to control domestic markets by imposing high tariffs which will not be affected significantly by WTO reduction commitments.

The Undersecretary for Foreign Trade in coordination with the Ministry of Agriculture and Rural Affairs decides on Turkey's position in multilateral trade negotiations at the WTO. Although it does not seem to have a clear strategy and action plan, it has been pursuing a protectionist position. It is a member of the G-33 countries – 42 developing countries that take a protectionist approach to agricultural trade liberalization.¹⁴ The group mainly argues for establishing different levels of tariff thresholds and related reduction commitments for developing and developed countries. It put forwards the concepts of special products and a special safeguard mechanism. Based on concerns in relation to food security, livelihood and rural development, the G-33 demands more flexibility in designating special products which should be subject to low or no tariff reduction. It also negotiates for a special safeguard mechanism which would allow them to provide their farmers with some protection against import surges and international price fluctuations.

Turkey's slow integration into world agricultural markets represents another low equilibrium point slowing its agricultural transformation. Due to low yields in staple food production, the large proportion of the country's cultivable land has to be devoted to cereals, leaving relatively little for other crops. Since cereal production is undertaken by large numbers of underproductive farmers, they need protection from

¹⁴ The other members of the G-33 are Antigua and Barbuda, Barbados, Belize, Benin, Botswana, China, Congo, Côte d'Ivoire, Cuba, Dominican Republic, Grenada, Guyana, Haiti, Honduras, India, Indonesia, Jamaica, Kenya, Korea, Mauritius, Madagascar, Mongolia, Mozambique, Nicaragua, Nigeria, Pakistan, Panama, Peru, Philippines, Senegal, St Kitts and Nevis, St Lucia, St Vincent & the Grenadines, Sri Lanka, Suriname, Tanzania, Trinidad and Tobago, Uganda, Venezuela, Zambia, Zimbabwe.

competitive producers in world markets. The country's protectionist approach through high trade barriers prevents agricultural consumers benefiting from low prices in world markets. In return, given that low-income consumer masses, both in rural and urban areas, spend the bulk of their income on staple foods, high food prices keep their real income lower than it would have been in a more open trade environment, which constrains their demand for higher-value commodities, slowing down the transition from low to higher-value cropping patterns. Therefore, Turkey faces a low equilibrium trap whereby the lack of transformation within agriculture locks it into a protectionist position in international trade which in turn slows down its transformation within agriculture.

2.3.7 Ascribed inequality

Turkey illustrates a relatively equal land distribution pattern where small producers dominate the rural structure. The Gini coefficient for land distribution was 0.55 in 2001.¹⁵ However, at the regional level, there is a major exception to this relatively egalitarian picture. South-eastern Anatolia is an historical case of severely skewed land distribution where the majority of rural population is land-poor, while a small minority owns the bulk of the agricultural land. This constitutes a major constraint on agricultural transformation at the regional level.

¹⁵ The Gini coefficients have been calculated by the author based on the basic formula below:

Y: Cumulative relative frequency of income

X: Cumulative relative frequency of households

$$G = |1 - \sum_{k=1}^n (X_k - X_{k-1})(Y_k + Y_{k-1})|$$

The region covers 15 per cent of the total agricultural land in Turkey, albeit, the country's largest land holdings are concentrated there. According to the 2001 land census, around 50 per cent of holdings larger than 100 hectares and 40 per cent of those larger than 50 hectares were located in the region (SIS, 2003b). The land was concentrated in the hands of a few households. The top two per cent of households owned 29 per cent of the total land in 2001.¹⁶ In the most extreme case, five families owned around 170,000 hectares of land, six per cent of the total cultivable land. On the other hand, the bottom 58 per cent of households owned less than five hectares, which constituted only 11 per cent of the total (SIS, 2003b). Therefore, with the highest Gini coefficient – 0.65 in both 1980 and 2001 – the region constitutes a major exception to relatively egalitarian land distribution in Turkey.

What makes the region exceptional in terms of its land distribution pattern is its different political economic history. State politics, dating back to Ottoman times, have always played a central role in the evolution of rural inequality in the region. Kurdish tribal chiefs enjoyed the control of large stretches of land in return for their alliance with the central authority. A couple of land reform attempts failed after the establishment of the Republic in the first half of the 20th century. Sustained by continuous political patronage and reinforced by local tribal relations, the level of land inequality remained high throughout the early modern history of Turkey.

Since the inequality in the region is 'ascribed' – i.e. based on land grabbing, political favouring or traditional bonds (i.e. tribal relations) rather than merit, operational efficiency and market performance (Eastwood and Lipton, 2000, p.46) – it hindered

¹⁶ This figure underestimates the full scale of land inequality in the region, due to the fact that the 2001 census understated the size of large landownerships, which will be discussed in Chapter V.

the functioning of economic mechanisms that allocate resources in a way to promote growth. It has limited the potential positive impacts of other factors, such as having relatively favourable ecology, agricultural mechanization and the government's investments in infrastructure. For instance, the GAP, a massive irrigation project entailing an extensive irrigation scheme – with 22 dams – has brought in new opportunities for the transition from low to high-value cropping patterns. However, at the local level, which will be investigated in a village study in Chapter V, the peasant masses have limited access to land and water which prevents them utilizing their operational comparative advantages fully in labour intensive cotton, vegetable and fruits production. Therefore, the region has not achieved the potential agricultural development it could have achieved if its rural resources (chiefly land and water) were more equably distributed.

2.3.8 Political and institutional trap

Between 1980 and 2004, Turkish agricultural policy framework was shaped by two financial crises hitting the country at the beginning and at the end of that period and by electorate politics with populist incentives in between. The 'structural adjustment' programmes of the 1980s accompanied by the 'Washington Consensus' in the 1990s, emerged as limited government spending, wage repression, tight monetary policies and financial liberalization, in a package imposed by the IMF and the World Bank, brought about radical policy changes at the macro-economic level. These policies paid no particular attention to the agricultural sector; their main concern was to stabilize macro-economic indicators, mainly in relation to fiscal balance. The sector has been affected as an outcome of these overall 'adjustments' which were meant to be the answer to Turkey's financial crises. Paradoxically, the more severe the

country's financial circumstances, the more constraints it was subjected to and the greater the impact on the agricultural sector.

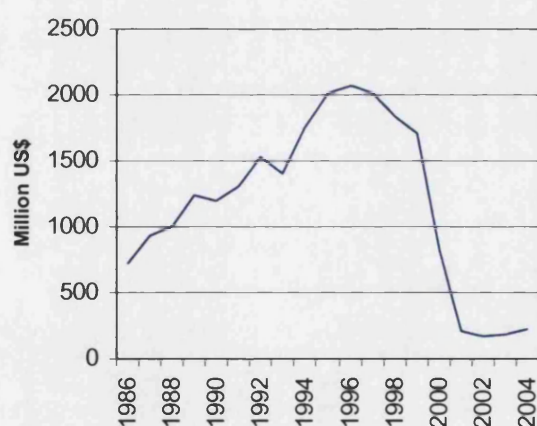
Nevertheless, in periods of relative macro economic stability when government was able to support agriculture, it failed to design coherent strategies to facilitate agricultural growth. The level of spending on infrastructure, extension services, research and development has always remained small in comparison to subsidies maintaining the existing structural inefficiencies. Their main objective has been to gain electoral support from rural areas, comprising more than one-third of the country's electorate, rather than formulating goals and designing new policy tools (Akder, 2007). These policies have placed the heavy burden of domestic support on consumers.

Structural Adjustment

Turkey has a long history of 'structural adjustment' programmes. It experienced one of the first examples of such policy packages in the early 1980s, after a major financial crisis hit the country at the end of the 1970s. It marked the turning point from 'import substitution industrialization' to export-led neo-liberalization. With the backing of five successive structural adjustment loans supplied by the World Bank between 1980 and 1984 (Onis, 2000), a new economic programme was adopted, which then changed the fundamentals of agricultural policies. There were sharp declines in agricultural subsidies. By 1985, the first programme introduced in 1980 lifted the bulk of input subsidies, except for small amounts of fertilizer subsidies (Kazgan, 1999, p.33). The amount of supported commodities was gradually reduced from 30 to 17 (OECD, 1994. p. 64).

Towards the end of the 1980s, the level of subsidies began to rise again as the economy showed signs of recovery from the crisis. There was an upward trend in all categories of input and output subsidies. However, they followed a fluctuating trend, rising in years of elections, falling thereafter. They peaked in 1998 before the country faced another severe financial crisis in 1999. The government had to take on an IMF stand-by programme which again shifted the way agricultural policies were undertaken. It imposed rapid reductions in all agricultural subsidies. In only three years following the inception of the programme, the level of input subsidies fell below the 1986 level, from US\$ 1,700 million in 1999 to US\$ 170 million in 2002, a tenfold decline (see Figure 2.21). The absolute value of marketing support went down from US\$ 4.3 billion in 1999 to less than US\$ 0.5 billion in 2004 (OECD, 2006a).

Figure 2-21 Input subsidies (million US \$) in Turkey, 1986-2004



Source: OECD, PSE/CSE database 1986-2005 (OECD, 2006a).

It was the conditions set by the IMF that forced the government to take such policy measures restraining the agricultural sector. However, the IMF programme collapsed in 2001, resulting in an unprecedented economic crisis. Then, the IMF introduced a

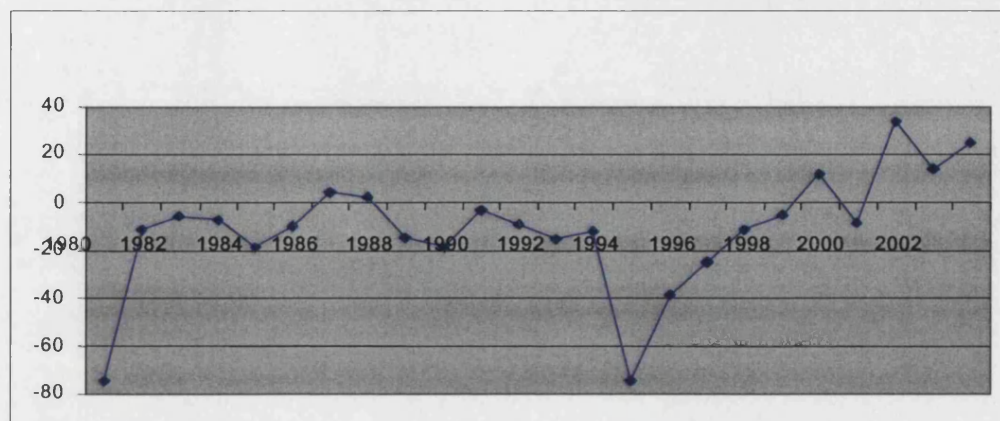
new bail-out plan with even tougher agricultural policies. Facing the most serious economic crisis in the country's history, the government assured the IMF that it would implement all the 'suggested' agricultural policies. Through a series of 'letters of intent,' Ministry of Finance, the Treasury and the Central Bank declared a strong commitment to reduction or removal of agricultural subsidies and the privatization of state-owned agricultural enterprises. It also accepted precise conditions set by the standby agreement regarding how it should set prices for major agricultural commodities.¹⁷

The restructuring of the agricultural bank, the privatization of state-owned marketing and stocking boards and removal of financial support from producer associations were among the 'promised' policies that were immediately put into effect. The Agriculture Bank of Turkey, one of the biggest commercial banks in the country, underwent a radical restructuring. Its primary function of providing cheap credits to agricultural producers was lifted altogether. For the first time, interest rates for agricultural credits were above the inflation rate in 1999 (see Figure 2.22). Many state-owned enterprises in the agricultural sector have been put into the privatization portfolio, including the Tobacco, Tobacco Products, Salt and Alcohol Enterprises Inc. (TEKEL) and major chemical fertilizer factories.¹⁸

¹⁷ For instance, the IMF required that the purchase prices of cereals would be set according to the Chicago Board of Trade.

¹⁸ Two of them TUGSAS and IGSAS controlled around one-third of the fertilizer market in 1999 (Kafaoglu, 2001, p.40), in (Ozkaya, et al., 2001, p. 18).

Figure 2-22 Real interest rates for agricultural credits in Turkey, 1980-2003



Source: Ministry of Agricultural and Rural Affairs (MARA, 2004).

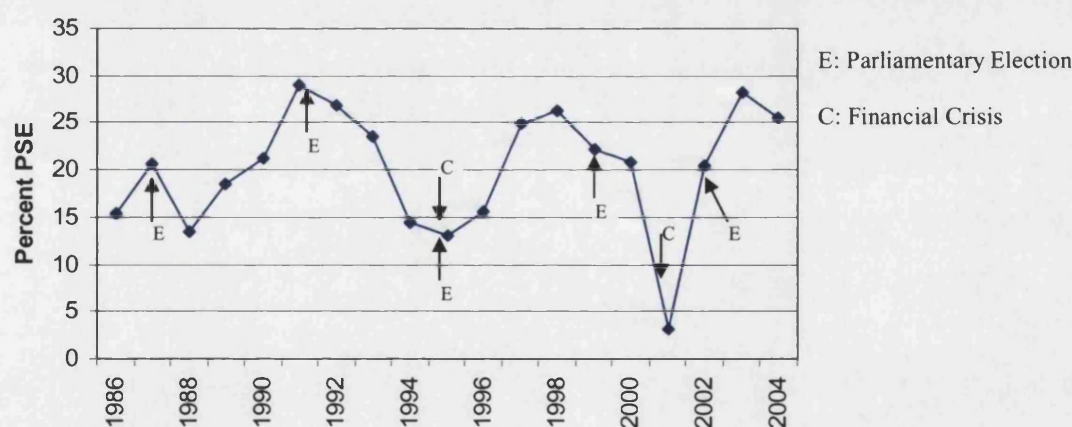
The IMF programme and related World Bank project also initiated a new scheme of direct subsidies replacing the previously implemented input and output subsidies. A scheme of direct income support (DIS) under the name of Agricultural Reform Implementation Project (ARIP) was adopted (World Bank, 2001). It granted farmers an annual payment to cover short-term losses associated with the removal of price and input-based subsidies. A payment of around US\$ 110 per hectare was granted to all farmers, with the cap of a maximum of 50 hectares per farmer. Apart from all serious implementation problems, the project provided only US\$ 1.25 billion in 2002, which was substantially below compensation for the losses in input and marketing support that was available before the programme (OECD, 2004).

Domestic Support

The level of producer subsidies has fluctuated substantially over the last twenty years, following a pattern reflecting the period of financial crises and elections. This can be analysed in a comparative way by using common measures used by the OECD, namely Producer Support Estimate (PSE), and Total Support Estimate

(TSE).¹⁹ The average percentage PSE in Turkey was 14 per cent in 1986, meaning that 14 per cent of the total domestic value of production was directed to producers through transfers.²⁰ Then it moved up to 27 per cent in 1991 which was a parliamentary election year. It then fell down to 12 per cent in 1994 when the country was hit by a financial crisis. Then it moved up again to 26 per cent in 1998, just before the general election in 1999. Then it rapidly declined to five per cent in 2001 when the country faced another financial crisis. It recovered from that level and reached as high as 28 per cent in 2003 just before the municipal elections the following year. As such, as Figure 2.23 illustrates below, the level of agricultural support has always made a pendulum movement between the highs in election times and the lows in financial crises.

Figure 2-23 Producer subsidies (producer support estimate) in Turkey, 1986-2004



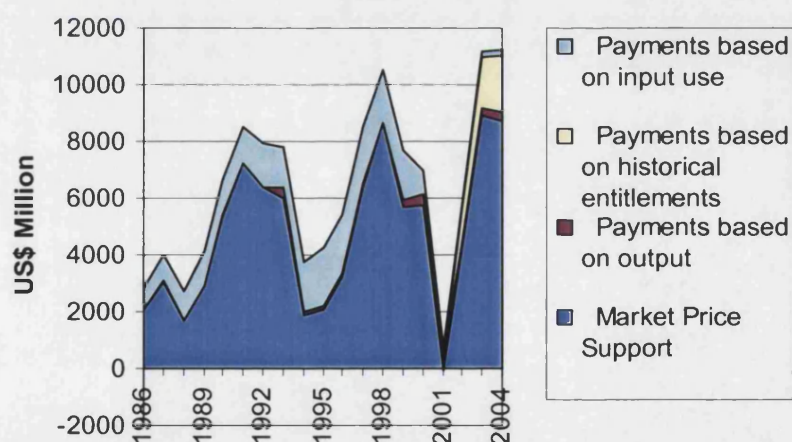
Source: PSE/CSE database 1986-2005 (OECD, 2006a) and (Cakmak and Akder, 2005).

¹⁹ The Producer Support Estimate (PSE) measures the total value of transfers made to producers from consumers or taxpayers in a given year. The value of the PSE includes market price supports and non-market transfers (direct payments, input subsidies and other indirect supports). The percentage PSE is the total value of transfers as a percentage of the total domestic value of production (OECD, 1994, p. 164). It takes world prices as reference point and considers the price differential between world prices and domestic prices as market transfers to domestic producers. The Total Support Estimate (TSE) is also a related but a different estimate encompassing transfers from consumers, taxpayers and budget revenues.

²⁰ Although OECD data are not available before 1986, Kasnakoglu calculates that it was 28 per cent in 1979 before it declined to 14 per cent in 1986 (Kasnakoglu, 1992, p.325).

The average PSE was 20 per cent in Turkey between 1986 and 2004, which was consistently lower than the OECD average. The percentage PSE in OECD was 40 per cent in 1986 which then fluctuated slightly, but has always stayed over 30 per cent in the entire period (OECD, 2006a). On average, producers in OECD countries received 33 per cent of the value of their production through various forms of transfers. Among them, Switzerland had the highest level of support with 72 per cent on average, while New Zealand set the lowest with three per cent (OECD, 2006a). Hence, Turkey represents one of the lowest (on average) and at the same time the most volatile levels of producer support estimates among all OECD countries.

Figure 2-24 Composition of producer support estimate in Turkey, 1986-2004



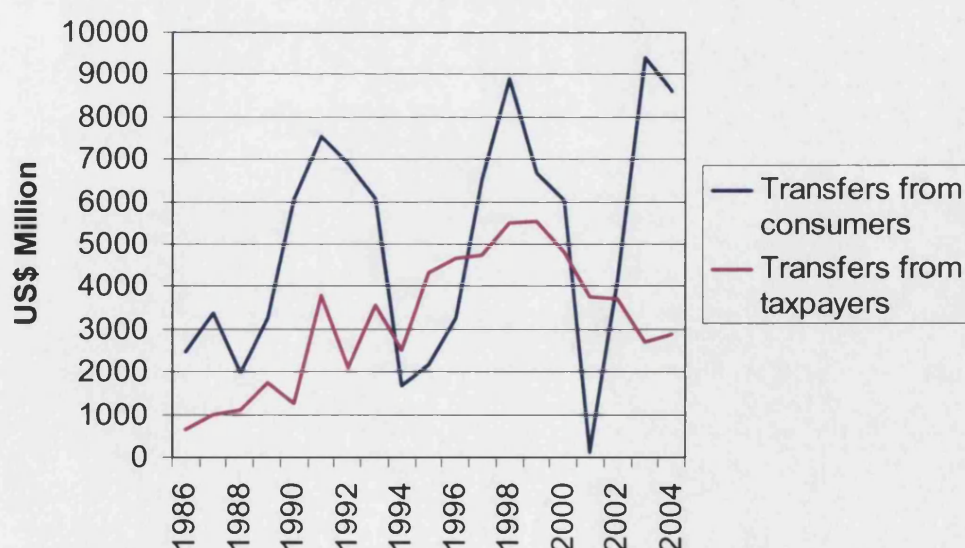
Source: OECD, PSE/CSE database 1986-2005 (OECD, 2006a).

The Total Support Estimate (TSE), on the other hand, has followed a slightly different trend over the same period in Turkey.²¹ Consumers shouldered a heavier

²¹ The TSE includes general services support in addition to producers support estimate under the category of transfers from taxpayers. It is calculated by the formula: $TSE = (\text{transfers from consumers}) + (\text{transfers from taxpayers}) - (\text{budget revenues})$. It allows for assessing whether the actual burden of agricultural subsidies is on governments or on consumers.

burden of agricultural support as compared to governments in 15 years out of 19 in the 1986-2004 period (OECD, 2006a). As is indicated by the composition of the PSE (see Figure 2.24), the government's subsidy policy was heavily based on market price support, which means that the consumer paid for the bulk of the support rather than the government (tax payers). Between 1986 and 1993, more than 70 per cent of the total transfers to producers occurred through the transfers from consumers (OECD, 2006a). Then the consumers' burden decreased to 40 per cent between 1994 and 1996. Afterwards, both transfers from the government and from consumers declined severely in 1999. As Figure 2.25 illustrates below, since 2001 the share of transfers from consumers increased tremendously, and the downward trend in transfers from the government has continued. In 2004, the share of transfers from consumers in total support to producers hit 72 per cent, one of the highest since 1986. This means that the government has been placing the heaviest burden of agricultural support on consumers.

Figure 2-25 Composition of total support estimate in Turkey, 1986-2004

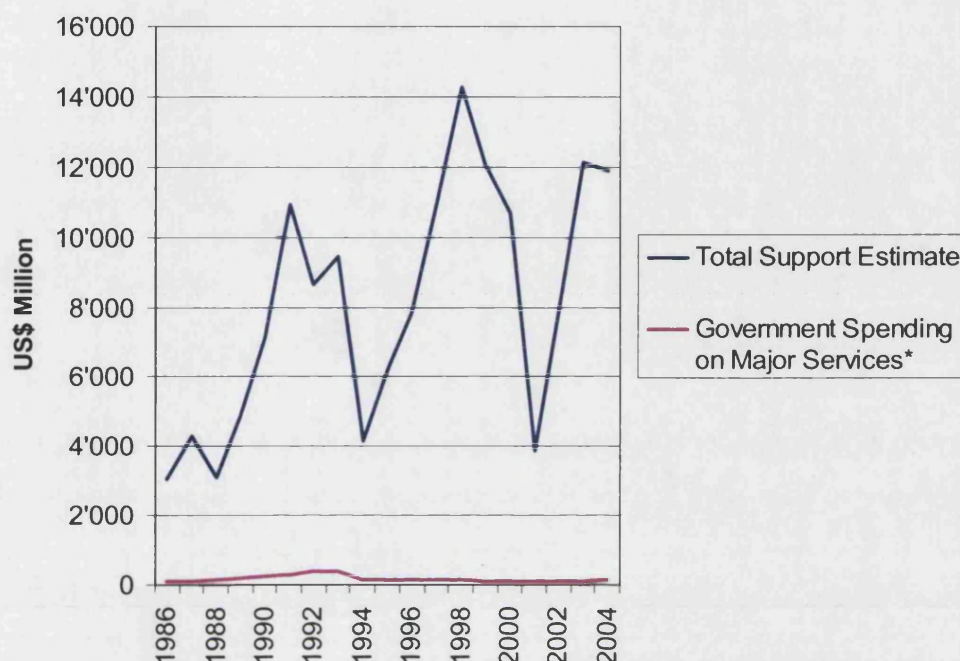


Source: OECD, PSE/CSE database 1986-2005 (OECD, 2006a).

The trend of funding producers through consumers has serious socio-economic consequences. Especially considering that the poor spend the bulk of their income on agricultural commodities, high consumer prices means transferring vital resources from the poor consumer to the farmer. It actually means that the governments were effectively transferring resources from one segment of the poor to another while worsening the situation of consumers. On the other hand, the relatively wealthier segments of the society who spend a smaller proportion of their income on agricultural commodities are paying for a smaller proportion of the government's agriculture bill, since the tax component of the subsidies is in decline. That is to say, the government's policy of subsidizing producers through consumers was creating a regressive taxation mechanism which has been worsening income distribution.

The level of spending on major infrastructure services has always remained small in proportion to the Total Support Estimate (TSE). The government's spending on infrastructure, research and development, agricultural schools and inspection fell from around three per cent of the TSE between 1986 and 1994 to 1.6 per cent on average between 1995 and 2004. As is shown in Figure 2.26 below, even in periods when the Total Support Estimate reached relatively high levels, the share of spending on major agricultural services remained dismally small. As such, even in periods of relative economic stability when governments had financial resources to invest in agriculture, they did not pursue policies focusing on infrastructure, research, development and other productivity enhancing services which would have stimulated agricultural growth.

Figure 2-26 Government spending on major services vs. the total support estimate in Turkey, 1986-2004



Source: OECD, PSE/CSE database 1986-2005 (OECD, 2006a).

* Includes government spending on infrastructure, research and development, agricultural schools and inspection services.

2.4 Small-farm transformation

Turkey's agricultural sector is dominated by small farms, with an average size of around six hectares. Their number increased from 3.4 million in 1980 to 3.7 million in 2001 (SIS, 1982; SIS, 2004). This thesis treats the predominance of small farms as a question of the lack of substantial labour transition from the agricultural to the non-agricultural sectors at the household level. It attempts to analyze it from the perspective of the household as a relationship between the opportunity cost of staying in agriculture and the opportunity cost of leaving agriculture. It argues that since both of these opportunity costs have been consistently low in Turkey over the last 25 years, small farms have continued to dominate the sector, while facing

relative impoverishment. By the same token, differentiation within agriculture, the historical process of land concentration, did not take place, mainly due to the lack of labour transition from the agricultural sector.

In the context of small family farms, even if large numbers of households exited the sector altogether, this would not put significant strain on the total output.. With productivity levels at the sectoral level so low in Turkey, there is ample scope for raising labour productivity even if some agricultural labour force exited the scene. So, what are the underlying factors, operating at the household level, that have prevented surplus labour from leaving small farming over the last 25 years?

As discussed above, a combination of low rural and urban population growth and concentration of people of working age (15-65), has led to the growth of potential labour supply. This in turn has raised the level of unemployment and underemployment in non-agricultural sectors. Moreover, the demand for unskilled rural labour has been low and getting lower as non-agricultural economies modernized. Hence, for an average rural labourer, the chances of finding employment in the urban sectors have been getting smaller, which reduces the opportunity cost of staying in agriculture. On the other hand, the predominance of low value and low productivity activities in the agricultural sector keeps the opportunity cost of leaving agriculture low too. Therefore, the low opportunity cost of both leaving and staying in agriculture means that the sector has become a labour trap for millions of labourers working in low-income small farms. In fact, the agricultural sector employs the largest proportion of those who are below the national poverty line (World Bank, 2005b, p. 98).

2.4.1 Land concentration

A gradual land concentration, in term of either operation or ownership, is an integral part of the process of rural transformation. It involves a differentiation process whereby small farmers that leave agriculture would rent-out or sell their land²² while farms that had extra operational and financial capacity would expand the scale of their operation. The pull forces should be big enough to siphon labour out of the agricultural sector, which would encourage small and low-income farms to leave their land. Ideally, the sectoral growth in agriculture should also be big enough to create adequate surpluses for more competitive farms to expand their operational capacity and accumulate land.

It is, therefore, not surprising that there has not been a significant trend of differentiation (i.e. land concentration) in Turkey over the past 25 years. Looking at the results of the general agricultural census conducted every ten years between 1980 and 2001, more than 60 per cent of households owned less than five hectares in all the three censuses (see Table 2.3) (SIS, 1984b; SIS, 1994; SIS, 2003b). The amount of land owned by households in this category constituted 20 per cent of the total (see Table 2.4). Around 20 per cent of households owned between 5 ha to 10 ha. About 15 per cent of households owned between 10 ha to 50 ha, which could be considered as the middle-size ownership category. They owned around 35 per cent of the total land in the three censuses. The households in the largest category of ownership (more than 50 hectares) constituted less than one per cent of total households. The amount of land owned by this category constituted 11 to 12 per cent of the total in

²² In the early stages, renting-out is a more frequent tendency, as it allows the household/individual to keep the option of getting back to agriculture in case of lack of success in the non-agricultural sector.

both 1980 and 2001. In total, between 1980-2001, there has not been significant change in Gini coefficient for land distribution which saw only a slight rise from 0.53 to 0.55.²³ Therefore, the process of scale differentiation and upward mobility in ownership has been stagnant.

Increasing number of small farms has continued to dominate the sector. Between 1980-2001, the share of households owning less than five hectares increased by five per cent, while their share in total area increased by seven per cent (see Table 2.3 and 2.4, last columns). This was accompanied by a decreasing share of middle-ownership categories. The share of households owning between 5-10 hectares declined by almost 10 per cent while the share of those owning between 10-20 hectares declined by 8 per cent. Therefore, the dominance of small farms in Turkish agriculture has also been strengthened by a process of land fragmentation over the recent decades.

Table 2-3 Percentage of households by land ownership category in Turkey, 1980-1991-2001

Land ownership (ha)	Households (%)			Net change		
	1980	1991	2001	% 1980-1991	% 1991-2001	% 1980-2001
0-4.9	62.1	68	65.4	9.5	-3.8	5.4
5-9.9	20.2	17.3	18.2	-14.4	5.3	-9.9
10-19.9	11.6	9.4	10.6	-19	13.2	-8.3
20-49.9	5.3	4.3	5	-18.9	16.2	-5.7
50+	0.8	0.9	0.1	12.5	-92.1	-91.1
Total	100	100	100			

Source: General Agricultural Censuses of 1980, 1991, 2001 (SIS, 1984b; SIS, 1994; SIS 2003b).

²³ The Gini coefficients are based on the author's calculation using the basic formula:

Y: Cumulative relative frequency of income

X: Cumulative relative frequency of households

$$G = \left| 1 - \sum_{k=1}^n (X_k - X_{k-1})(Y_k + Y_{k-1}) \right|$$

Table 2-4 Percentage of total land by land ownership category in Turkey, 1980-1990-2001

Land ownership (ha)	Land (%)			Net change		
	1980	1991	2001	% 1980-1991	% 1991-2001	% 1980-2001
0-4.9	20	22.1	21.3	10.5	-3.5	6.7
5-9.9	21.2	19.9	20.7	-6.1	3.9	-2.4
10-19.9	23.8	21	23.8	-11.8	13.4	0
20-49.9	22.9	19.8	22.8	-13.5	15.3	-0.3
50+	12.1	17.1	11.3	41.3	-33.6	-6.2
Total	100	100	100			

Source: General Agricultural Censuses of 1980, 1991, 2001 (SIS, 1984b; SIS, 1994; SIS 2003b).

2.5 Transition to non-farm activities in rural areas

Rural-to-urban migration, which was historically an integral part of the process of the transformation from agriculture, is no longer essential as a spatial dimension of the process. As was shown in the first part of this chapter, rural-to-urban migration has slowed down in Turkey since the early 1990s. It has become synonymous with ghettoization,²⁴ making it less feasible for rural labourers to migrate to urban areas given the high levels there of unemployment and underemployment. However, the importance of non-agricultural activities in rural areas has been growing, and this provides an alternative mechanism to the process of labour transition by means of rural-to-urban migration. Nevertheless, at the regional level, the number and the share of non-agricultural households in rural areas seem to have corresponded to the level of the transformation within agriculture.

The number of households engaging in non-agricultural activities in rural areas in Turkey has increased over the last two decades, albeit with significant variations at

²⁴ The number of people living in slums has increased dramatically over the last 25 years, and it is estimated to have reached 900 million (UNPD, 2005, p. 51).

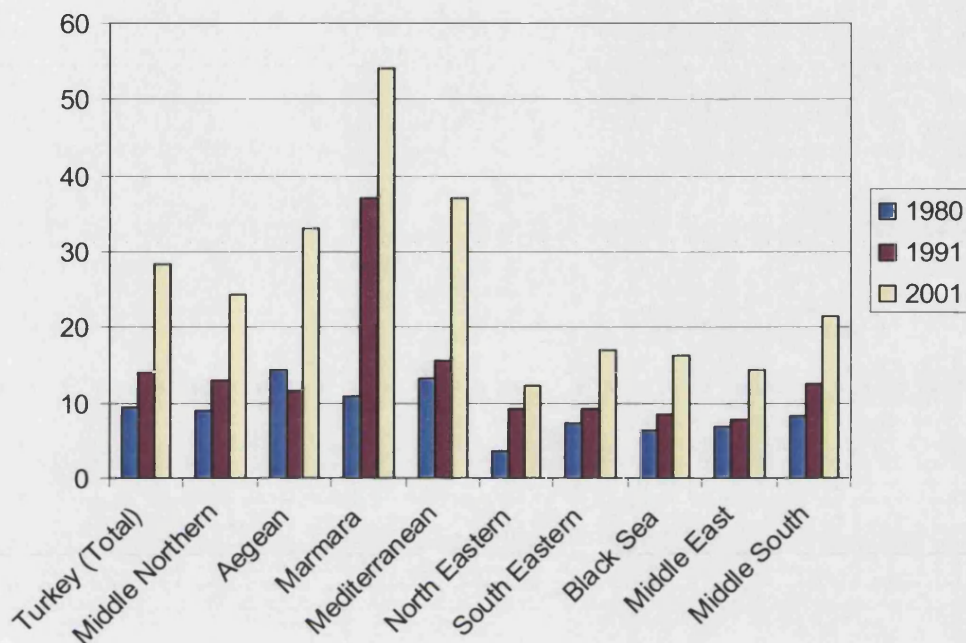
the regional level. Their number rose from 360,000 in 1980 to approximately 1.5 million in 2001 (SIS, 1982; SIS, 2004). Consequently, the proportion of non-agricultural households in rural areas – those engaged in services and manufacturing activities - increased from 9.5 per cent to 28.3 per cent (see Table 2.5 below). As Figure 2.27 shows, the Marmara, Aegean and Mediterranean regions have experienced the most rapid rise. For instance, in the Marmara region, the number of non-agricultural households increased by almost five times between 1980 and 1990. The Mediterranean region saw a 220 per cent increase between 1990 and 2001 (SIS, 1982; SIS, 2004). However, other regions such as north-eastern or middle-eastern Anatolia did not experience to any considerable extent a transition to non-agricultural activities in rural areas.

Table 2-5 Share of households engaging in non-agricultural activities in rural Turkey by region, 1980-1991-2001

	Percentages (%)		
	1980	1991	2001
Turkey (total)	10	14	28
I. Middle Northern	9	13	24
II. Aegean	15	12	33
III. Marmara	11	37	54
IV. Mediterranean	13	16	37
V. North Eastern	4	9	12
VI. South Eastern	7	9	17
VII. Black Sea	6	9	16
VIII. Middle East	7	8	15
IX. Middle South	8	13	22

Sources: 1980 and 2001 General Agricultural Census, Village Information (SIS, 1982; SIS, 2004).

Figure 2-27 Percentage of non-agricultural households in rural Turkey by region 1980-1991-2001



Sources: 1980 and 2001 General Agricultural Census, Village Information (SIS, 1982; SIS, 2004).

At the regional level, the high shares of non-agricultural households seem to correspond to a high level of agricultural development. Those regions which had the most rapid growth in the number and the share of non-agricultural households, namely the Marmara, Aegean and Mediterranean regions are also those which had the highest land productivity in 2001. As shown in the first part of this chapter, average value produced on one hectare of land was substantially higher in these regions as compared to the country's average (see Figure 2.12). Since the production, expenditure and investment linkages between the agricultural and non-agricultural sector in rural areas are strong, the growth performance of the agricultural sector strongly affects the level and pace of the transition from agricultural to non-agricultural activities in rural areas (Reardon, 2004, p. 5). Hence it is not surprising

not to observe a substantial rise in the share of non-agricultural households in other regions where the level of agricultural development was low.

2.6 Conclusion

From an historical point of view, rural transformation has been slow in Turkey over the last quarter of a century.

Demographic and economic developments have been unfavourable for the process of *transformation from agriculture*. The size of the rural population has seen only a slight decline, while the size of the rural population of working-age has risen. The urban labour force has grown enormously, not only as a result of rural-to-urban migration, but increasingly as a result of urban population growth itself. Hence, the population has been growing and the work force has been growing at an even faster rate in both rural and urban areas, which has made the transformation more difficult. As for economic factors, the employment elasticity of non-agricultural growth has been low, leading to a substantially low level of labour participation and high unemployment in non-agricultural sectors. Although the services sector has absorbed more additional labour than the manufacturing sector, the aggregate employment elasticity of non-agricultural growth has been inadequate to absorb large amounts of surplus labour from rural areas. In addition, the low level of educational attainment of the rural labour force contributed to the lack of sizeable labour transition from the rural to urban sectors.

The *transformation within agriculture* has been stagnant, and low-value cropping patterns at low productivity have continued to be prevalent. This was mainly because

Turkey has not benefited from the Green Revolution fully, and the level of productivity in staple food production has remained severely dependent on ecology, creating substantial variations at the local level. The transition to higher value cropping patterns has been slow due to some structural obstacles of agricultural and non-agricultural origin. First, because of low yields in staple food production, high proportions of arable land needed to be devoted to staple foods, which has discouraged the transition. Second, because of low growth rates and/or skewed distribution of disposable income in the non-agricultural sector, the demand stimulus for the transition in cropping patterns has been low.

In addition, the agricultural sector has been experiencing a period of severe profitability crisis arising from falling prices in both domestic and world markets and increasing cost of production. This has also been reflected in declining investments going into agriculture especially by the private sector. Since low levels of investment diminish profitability and growth even further, the sector seems to have been suffering from a downward spiral of 'low margin – low investment – low growth'. On the other hand, Turkey has not managed to utilize its full potential in export markets where it has the advantage of high-value vegetable and fruit production. Also it has not benefited from cheaper supply opportunities in other commodities, mainly food staples. Furthermore, its chronic macro-economic instability and recurrent fiscal crises brought the 'structural adjustment' in the 1980s and its 'Washington Consensus' version in the 1990s, which resulted in a political economic environment which has not been conducive for transformation within agriculture.

The stagnant process of the transformation from agriculture has led to the predominance of small farms in the sector. At the household level, since the chances of finding non-agricultural employment are low (low opportunity cost of staying in agriculture), small-scale agriculture has become a labour trap for some 15 million labourers. Since the process of the transformation within agriculture has been stagnant too, the opportunity cost of leaving agriculture is also low, meaning that small farms have continued to be tied to their land, and the process of differentiation through land concentration has not taken place. Some significant extent of transition from agricultural to non-agricultural activities in rural areas has occurred in certain regions of the country, providing an alternative to rural-to-urban migration; however, it remains directly linked to the extent of agricultural development.

This chapter has investigated the major trends in Turkish agriculture over recent decades. The next three chapters will go into the details and exemplify the impact of some of the major factors described above at the local level. Through the longitudinal assessment of three village cases, it will provide thematic reviews regarding the various aspects of rural transformation. The next chapter takes the case of Tuz and analyzes market trends at the commodity level and assesses the role of agricultural policy and politics in rural transformation at the village level.

Chapter III - The Good, Bad and Ugly: Productivity, Price and Profitability in Tuz

A favourable agro-ecology, high-quality infrastructure, widespread use of biological, chemical and mechanical technology, and advanced agronomic practices represent a perfect combination for the process of agricultural development. These endowments rarely come together in developing countries, and when they do, it would be normal to expect that they would enable farmers to achieve high yields and high-value cropping patterns. However, would the consequent high-productivity be sufficient to sustain high levels of farm incomes and high rates of economic growth in agriculture?

This chapter considers the importance of market mechanisms in the process of transformation within agriculture. In particular, it investigates price trends as a crucial factor affecting the economic viability of the sector as a whole. It departs from the fact that the majority of agricultural commodity prices have seen a steady decline over the last 25 years. Taking the case of a single commodity – cotton – it examines the impact of various economic and political factors leading to the price fall. Apart from market mechanisms, it emphasizes the role of some extra-market (political) forces operating at a global level, lowering world prices artificially. It also investigates trends in input prices at the national level, which have been affected by changing domestic policies due to the ‘structural adjustment’ programmes that Turkey has faced. By looking at trends in productivity, prices and cost of production, the chapter aims at measuring the extent of, as some argue, the ‘profitability crisis’ in agriculture.

The village of Tuz in western Anatolia is a substantial illustration of the impact of price trends in world markets on agricultural growth at the local level. It is a cotton producing village which is fully integrated into world markets. Over the past 25 years, the farmers of Tuz have achieved one of the highest cotton yields in the world. However, what they have achieved in physical productivity has been undermined by market and extra-market factors operating at the international and national levels. Since Tuz is dominated by small farms, it also provides insightful information about the process of small-farm differentiation.

This chapter is divided into five sections. First, the village of Tuz will be introduced along with the process of its demographic and labour transition since it was first studied in the early 1980s. Second, the chapter will focus on the enormous success the farmers of Tuz have achieved in improving cotton yields. Third, it will take the analysis beyond the village level and investigate price trends in world cotton markets and assess major economic and political factors affecting prices globally and domestically. Fourth, the trends of output productivity and the cost of production will be assessed, and it will return to the village and analyze trends in profitability at the local level. Finally, the chapter will investigate the question of small-farm differentiation through land concentration over the last two decades.

3.1 Tuz, a village in agricultural transformation¹

The village of Tuz is located in the Söke district of the province of Aydın in western Turkey. It is around 150 km south of İzmir. Söke is in a delta valley fed by a river

¹ This section draws partly on author's paper published in International Journal of Agricultural Resources and Governance (Karapinar, 2007).

which joins the Aegean Sea at the valley's western edge. The village is in the south-west of the Söke district to which it is connected by a tarmac road of about 18 km. It skirts a mountain range on its north side, and faces the valley along its south-east and south-west. The Aegean Sea is in about 2 km from the village.

In the fall of 2003, I undertook fieldwork in Tuz for six weeks. The research design was based on random sampling of households, according to their location in the village. 130 households, covering 42 per cent of the total, were interviewed. Taking regard of various official lists of population, land ownership and occupation, the sample represented 40 to 50 per cent of all households when they were categorized by demographic features, farm size and occupational composition (agricultural and non-agricultural). In September 2004, I revisited the village for a shorter period.

3.2 A limited labour transition

The demographic and occupational composition of the village has changed in the last 20 years. There were 893 people living in 170 households in 1984 (Sirman, 1988, p. 56). By 2003, the village population had grown at 1.9 per cent per year, to reach 1275 persons residing in 306 households. While the size of population was increasing, the average household size declined from 5.2 in 1984 to 4.2 in 2003. The extent of rural-to-urban migration has not been significant, and the population has been growing at a natural rate. There has not been significant labour transition from rural to urban sectors.

There has been some labour transition, however, in terms of the occupational composition of the labour force. In 1984, 63 per cent of households engaged in

farming (Sirman, 1988, p. 80). In 2003, the share of farm households was slightly lower, at 56 per cent. Remaining households earned their livelihoods from fisheries, manual labour, artisanship and other service activities. As for actual numbers, around 140 households were undertaking activities other than farming in 2003, compared to 60 households in 1980. Increasing population along with the demographic change in relation to the decline in household size has brought about some labour transition to non-farming activities within the village.

3.3 Productivity on the rise

Tuz has experienced a full transition to high-value cropping patterns, along with substantial productivity improvements over the last 25 years. High-value cotton production constituted more than 95 per cent of field crops in 2003. In addition, land productivity has risen dramatically; in fact, the farmers of Tuz have achieved one of the highest cotton yields in the world. Yields for cotton lint increased from 750-900 kg per hectare in 1978 to approximately 1,500 kg per hectare in 2003, more than doubling the world average (650 kg/ha lint) (ICAC, 2004). As for the quality of cotton – measured in fibre length, fineness, strength and maturity – the farmers produce (Aegean cotton) one of the world's highest quality products (Schmitz, 1999, p.1). How have they made such high levels of progress in agricultural development?

First, ecological conditions are favourable in Tuz. It enjoys the availability of large stretches of low-land in the delta valley in which it is located. It also benefits from the right average temperatures, since in order to achieve high yields in cotton, annual average temperatures should be around 19°C, while summer averages should be 25°C (Tuzel and Ul, 2003, p. 83). Especially in the first few weeks of sowing,

temperatures are important in determining the level of plant development (Ozsoy, et al., 2003, p. 358). Similarly, Tuz also enjoys one of the highest average lengths of growing period in Turkey, more than 200 days, providing high potential for agricultural growth.

The availability and the timing of water are also crucial in achieving such high levels of productivity. According to agronomic research, a precipitation rate above 389 ml before sowing, and below 82 ml between May and October has a positive impact on the yields (Ozsoy, et al., 2003, p. 361). Depending on the temperatures, precipitation rates, the root depth of cotton and the capacity of the soil in absorbing humidity, 4 – 6 bursts of additional watering are required (at 15 – 20 day intervals) (Ozsoy, et al., 2003, p. 365). In the region where Tuz is located, the average annual precipitation is around 600ml which fall short of fulfilling this requirement. However, the entire cultivable land of the village has access to water through the canal irrigation facility, completed by the state in the 1980s. It emanates from the river and supports the necessary frequency of watering all year round.²

Although almost the entire cultivable land is affected by salinity which affects yields badly,³ all plots in the village have drainage facilities which are designed to dispose of it. The farmers fill their fields with water in the off-season (winter) in order to create a downward pressure on the water-table towards the bottom of the soil where the planting takes place. Then, the extra water is automatically disposed of out of the

² The Menderes River is regulated by reservoir gates. They are closed in the cotton growing season to enable high utilization of water. The gates and flood channels are open in the winter season, which reduces the risk of flood.

³ It is estimated that the salt level of 9.6 mmhos/cm decreased the yield by 10 per cent; and the level of 17 mmhos/cm decreased it by 50 per cent. Levels over 27 mmhos/cm made it impossible to cultivate cotton (Tuzel and Ul, 2003, p.84).

canals. Hence, through the extensive irrigation and drainage infrastructure, the farmers of Tuz maintain high levels of productivity.

Second, they benefit from the extensive use of chemical technology, enhancing the productive capacity of the soil. Depending on the micro and macro elements that are needed for a particular soil type, the systematic application of fertilizers is necessary to improve the quality and quantity of cotton. The amounts are specified at about 70-100 kg per hectare nitrogen (N), 40-120 kg per hectare phosphor (P) and 60-300 kg per hectare potassium (K) (Hakarlerler and Yagmur, 2003, p. 79). In Tuz, the average total application was about 700 kg/ha in 2003, well above the required levels. However, the amount of fertiliser used by farmers was not determined by scientific soil analysis. Only 6 out of 72 cotton-cultivating households in the sample of survey declared that they had tested the composition of the soil sampled from their plots. Nevertheless, since fertilizers are also more effective under irrigated conditions (Gillham, et al., 1995, p. 72), their intensive application has improved yields substantially.

Third, increasing use of high quality seed varieties constituted a very important genetic factor enhancing productivity. In the Aegean region, research in plant breeding and hybridization has led to the development of higher-quality and higher-productivity cotton seeds. With the extensive participation of the private sector, several hybrid varieties have been developed over the last ten years. Almost 40 new seeds have been certified since 1995, and 24 of them by private companies (Karadayi, 2003, pp. 65-66). New varieties have enhanced yields, lint quality and reduced labour costs and seeding losses. They are more resistant to adverse climate

conditions, such as strong winds, high temperatures and water limitations. They also enhance the quality of the lint produced after ginning.⁴ In Tuz, more than 90 per cent of cotton producers in the survey stated that they had used certified seeds in 2003.

Fourth, an increasing use of mechanical technology also contributes to improvements in yields. The use of tractors and other equipment (seed drills, hoes etc.) has expanded to even relatively small farms. In 2003, only 10 percent of the land was cultivated by households that did not own a tractor. There were 65 tractors in the sample of 130 households. Excluding those that did not farm any land, 63 out of 72 households own at least one tractor. As the farm size increased, the proportion of households owning a tractor also increased. In the category of households farming less than 2.5 hectares, three households out of 15 owned a tractor. In the category of 5 – 10 hectares, 18 households out of 20 owned one. Half of the households operating more than 10 hectares had more than one tractor (see Table 3.1).

Table 3-1 Number of tractors owned by category of farm in Tuz, 2003

Land operated (ha)*	Average number of tractors per household	Average amount of land operated per tractor (ha)**
0-2.49	0.2	1.9
2.5-4.99	0.7	3.6
5-9.99	0.9	6.5
10+	1.5	13.4
Total	0.8	6.4

*Based on households engaged in farming.

**Based on households owning tractor.

⁴ Better quality seeds also reduce costs, since the percentage of successful fertilizations is higher. They need less to be sown per hectare, which also reduces labour cost by reducing the frequency of hoeing after the plants' vegetation begins. Seeds saved from waste in this way also generate value through seed oil production.

However, the average amount of arable land per tractor was relatively low, at 6.4 hectares. It was as low as 1.9 hectares per tractor in the farm-size category of less than 2.5 hectares, while it reached 13.4 hectares in the category above 10 hectares. Although a single tractor was capable of cultivating more than 50 hectares, since the plots were fragmented and high-productivity cotton production required precise timing, creating seasonal peaks for the use of a tractor, the utilization rates were low. Similarly, almost all farm households tend to keep a set of other mechanical equipment to be readily available when it is needed. Such an extensive use of mechanical technology contributes to increasing yields.

Fifth, the farmers' knowledge of agronomic practices and crop management is key for achieving high yields in cotton. Farmers in Tuz have decades of experience in cotton production with right agronomic practices.⁵ From field preparation to harvest, they perform precise practices in different phases of the production process to obtain good quality and quantity output. For instance, the timing, frequency and the amount of watering is vital (Gillham, et al., 1995, p. 74), as late watering after sowing is estimated to result in losses of up to 22 per cent (Tuzel and Ul, 2003, p. 86). The amount of fertilizers the farmer applies, and the timing of fertilization are also critical in achieving a balanced plant development and hence high yields (Gillham, et al., 1995, p. 70). Farmers in Tuz perform good crop protection, through weed control, disease and insect protection which have had a direct positive impact on yields.

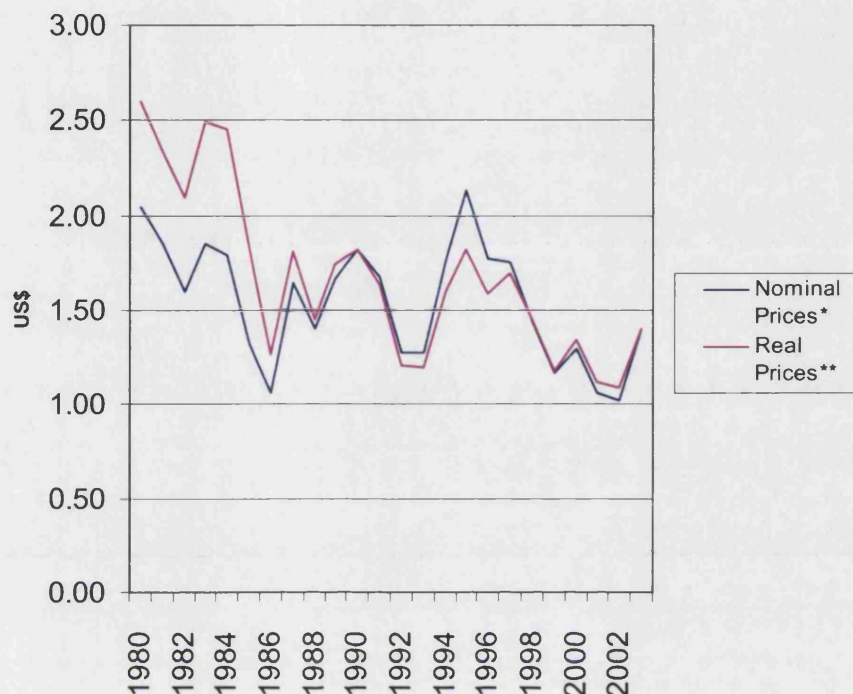
⁵Cotton production has a long history in this region, dating back to the early 19th century. According to Issawi (1980, p. 245), the region exported more than 70.000 bales (200 kg each) of cotton to world markets at the end of the century.

Therefore, it is not coincidence that the farmers of Tuz have achieved one of the world's highest yields over the last 25 years. The right combination of a favourable ecology, and the full application of the conventional 'Green Revolution' technology – as a package of intensive chemical fertilizers, improved seed varieties, mechanical technology and extensive irrigation infrastructure – in addition to advanced agronomic practices have enabled the farmers of Tuz to make such an exceptional progress in their agricultural transformation.

3.3.1 Cotton: still white gold?

The impact of such a substantial progress in land productivity, however, has been largely offset in economic terms, the underlying reasons for which go beyond the village. Since Tuz is fully integrated into world cotton markets, global price trends directly affect the village economy. Like the majority of agricultural commodity prices, world cotton prices have been decreasing over the last two decades, both in nominal and real terms. As is shown in Figure 3.1 below, the real price of cotton hit its lowest level for more than twenty years in 2002. It declined from US\$ 2.6 per kilogram in 1980 to US\$ 1.09 in 2002 (Baffes, 2004, p.63). This amounted to an annual decline of 2.1 per cent on average. Moreover, there have also been significant price fluctuations. For instance, the prices dropped from US\$ 2.53 per kilogram in May 1996 to US\$ 0.97 in December 1999 (Baffes, 2004, p. 5). This raises serious questions regarding the economic viability of cotton production, which has been a symbol of agricultural development in Turkey.

Figure 3-1 World cotton prices (US\$ per kilogram), 1980-2003



Source: World Bank Commodity Price Data in (Baffes, 2004, p.63)

*Nominal prices are based on A Index (US Dollars per kilogram)

**Real prices have been deflated by the manufacture import unit value (1990 = 1.0).

3.3.2 The price trap in cotton

Cotton prices have been affected by a combination of economic and political factors.

The economic relationship between production and prices, which results in falling prices, operates in three ways: low price elasticity of demand, low income elasticity of demand and low price sensitivity of supply. Other supply-related factors arising from the substitution effect of synthetic fibre production also affect cotton prices. More importantly, there are major political factors operating through the trade and domestic support policies of major players in the market, lowering prices artificially.

Hence, the extent of the economic losses that the farmers of Tuz have encountered is determined beyond the village, in the realm of global markets.

As for economic factors, the income elasticities of cotton are not high, indicating that the relationship between income and demand is not strong. Although it is greater for higher income countries (Eisa, et al., 1994, p.43), low income elasticity of cotton has led to a relatively slow rise in demand, averaging 1.8 per cent over the last twenty years (Baffes, 2004, p. 1). This is almost the same as the rate of population growth, implying that the impact of the demand factor in creating an upward trend in prices is not strong.

There are also some other major supply-related factors contributing to the decline in cotton prices. Although total harvested area of cotton has not increased significantly, increasing yields along with the substitution effect of synthetic fibre generated adequate output to satisfy the slow rise in demand. Increasing share of synthetic substances (i.e. polyester) in the fibre market has put pressure on natural fibres. The share of synthetic fibre increased from 22 per cent in 1960 to 57 per cent, whereas the share of cotton declined to 40 per cent in 2002 (Baffes, 2004, p. 1). This was mainly due to the decreasing production cost of synthetic fibre as a result of continuous technological progress in that industry. Since there is a strong relationship between cotton and polyester prices (Baffes and Gohou, 2005, pp. 9-12), price falls in polyester dragged down cotton prices over the recent decades.

There are, however, more important political factors leading to the decline in cotton prices. Domestic subsidy policies of major cotton-producer countries affect prices

severely. According to the International Cotton Advisory Committee (2002), since 1997-98 total annual direct support, provided mainly by developed countries to their cotton producers, ranged from US\$ 3.8 billion to US\$ 5.3 billion. Cotton farmers in the US received an average annual payment of US\$ 992 million in the 1986-1993 period, and US\$ 7.045 billion worth deficiency payments (the difference between a target price and actual farm-gate price), in addition to US\$ 889 million loan deficiency payments (Gillham, et al., 1995, p. 118). Then, subsidy levels further increased and reached their highest levels. US cotton producers received US\$ 2.3 billion in 2001-02, and US\$ 3.6 billion in 2002-03 (Baffes, 2004, p. 13). Producers in the EU (mainly in Greece and Spain) received US\$ 0.8 billion in 2001-02 (Baffes, 2004, p. 13).⁶ As a result, heavy subsidies in developed countries enabled their farmers to increase supply and sell their cotton even below their cost of production, which led to the decline in world prices.

According to the International Cotton Advisory Committee (ICAC, 2002), if all the direct subsidies were lifted, cotton prices would have been 17 cent/pound higher in the 2000-01 season, and 31 cent/pound higher in 2001-02. The ICAC also concluded that in the absence of subsidies provided by the US only, prices would have been 10 per cent and 26 per cent higher, respectively.

Other studies on the impact of a possible removal of trade disturbing practices on world prices have produced different results. For instance, a recent study by FAO calculated that the price impact of the removal of subsidies would be 4.8 per cent

⁶ Although developing countries subsidized their farmers too, its overall impact on world prices is minimal. Chinese producers received US\$ 1.2 billion, while, producers in Turkey, Brazil, Egypt, and Mexico received only US\$ 150 million combined (Baffes, 2004, pp. 11-12).

(Poonyth, et al., 2004, p. 16).⁷ By applying the same simulation method to ICAC data, the same study came up with an average world price rise of 11.4 per cent. On the other hand, an IMF study estimated that, if the production subsidies and market price support were removed, the impact would be 2.8 per cent (Tokarick, 2003, p. 20).⁸ Goreux (2004, p. 16) argued that it would be around 15 per cent in 2002/03. A study by FABRI estimated that, in the absence of subsidies and trade barriers, prices would increase 15 per cent above the baseline scenario (for 2002-2011) (FABRI, 2002, p.23).

The discrepancies between different studies seem to be due to differences in their modelling, assumptions and data sets, however, there is a widespread agreement about the adverse impact of subsidies and trade barriers on prices and supply patterns. It is widely accepted that in the absence of such policies, the level of production in subsidizing countries will decrease, as opposed to an increase in non-subsidizing countries. If the latter has the extra capacity to expand their production, their share in world production and export markets will rise. Hence, there will be significant welfare gains mainly in non-subsidizing developing countries.

3.3.3 Cotton prices in Turkey

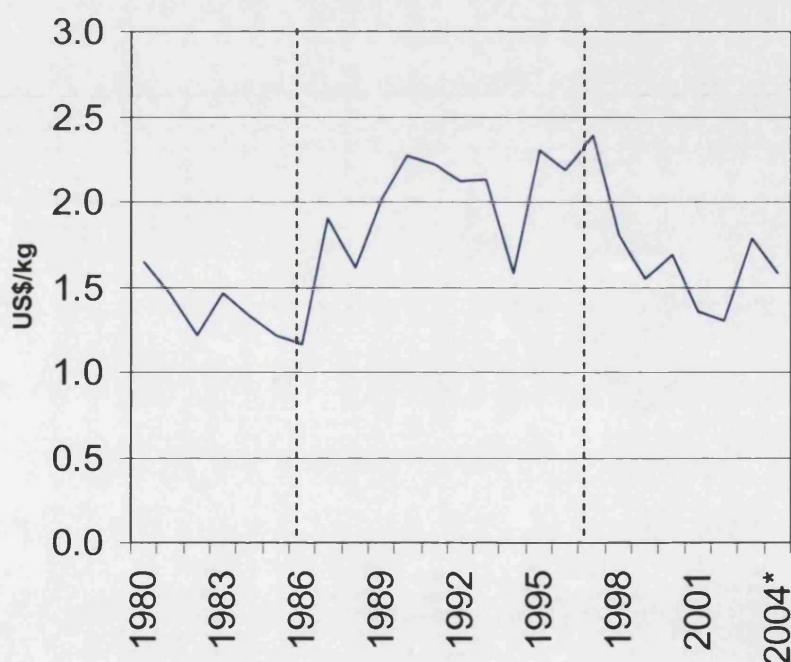
Turkey has a liberalized cotton market, and domestic prices (see Figure 3.2) have been following world trends since the late 1990s. It removed its quantitative

⁷ They used a data set based on the information member countries provided to the WTO regarding subsidy and trade barrier levels. There were five scenarios based on different price elasticities of demand and supply. The model assumed, among others, that there was a perfect price harmony between world prices and domestic prices (Poonyth, et al., 2004, p. 10). This optimistic scenario was based on inelastic demand, and quite elastic supply (three times the base values). That is to say, the scenario is based on a situation in which increasing prices would have a very limited impact on demand, whereas, it would have a big impact on supply, indicating that production would increase significantly in countries which do not support their producers).

⁸ Two per cent of the rise was estimated to come from removal of production subsidies, 0.8 per cent of it from the removal of market price support (Tokarick, 2003, p.20).

restrictions on trade and applied no tariffs for cotton (with one digit bound rate) which it has also been traded without custom duty with the European Union since it joined the EU Customs Union in 1996 (Gazanfer, 2004, p. 12). Especially since the second half of the 1990s, price linkages between the domestic market and international markets have remained strong (see Figure 3.3), although there have been some occasional price differences arising from short-term supply and demand mismatches.⁹

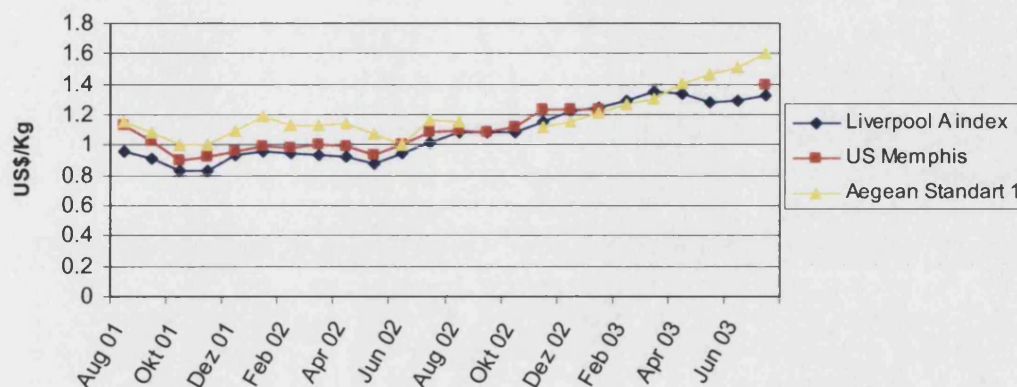
Figure 3-2 Nominal cotton prices in Turkey (US \$/Kg), 1980-2004



Source: Author's calculation based on cotton lint prices (SPO, 2006). *Estimate

⁹ The Turkish cotton market is also influenced by domestic factors such as the Agricultural Sales Cooperatives Unions (TARIS), ginneries, mills and textile factories. In recent years, an increasing volume of domestic trade has been undertaken via a spot exchange market, the Izmir Cotton Exchange (Gazanfer, 2004, p. 13). The trade volume in the cotton exchange increased from around 200,000 tons in 1992 to 260,000 in 2002 (Yemisci, 2003, p.26).

Figure 3-3 Cotton price trends by Liverpool, US Memphis and Aegean indexes, 2001-2003



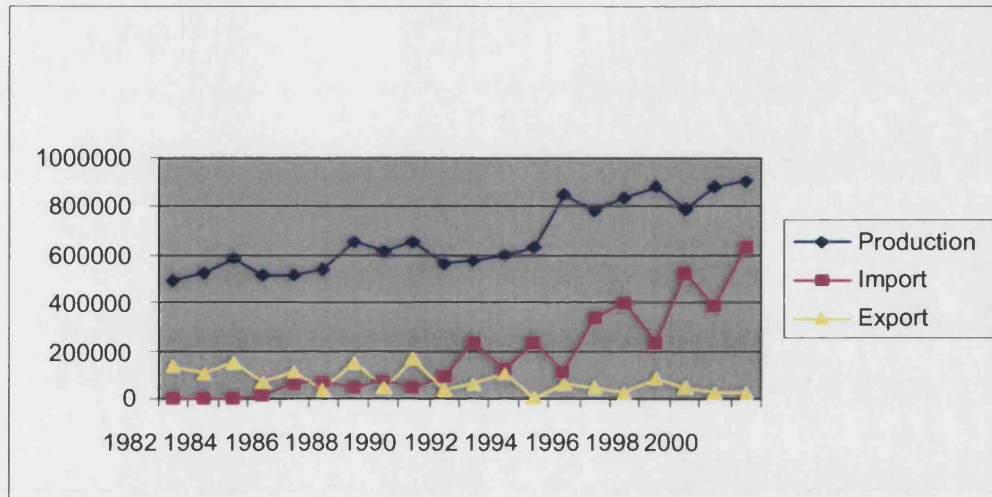
Source: Izmir Cotton Exchange Monthly Bulletins in (Yemisci, 2003, p. 24).

In the 1990s, the amount of cotton Turkey traded increased enormously and the country became a net importer of cotton. Between 1990 and 2001, the import volume rose 12-fold – from 46,000 tons to around 625,000 tons – mainly due to increasing demand from the domestic textile industry (see Figure 3.4). The US and the EU are the major source imports. As is shown in Figure 3.5, imports from the US rose from 13,000 tons in 1993 to 327,000 tons in 2001, increasing its import share from 11 per cent to 52 per cent (ICAC, 2003, p. 106). Imports from Greece, which was not a cotton producing country before it joined the EU, increased from 40,000 tons in 1994 to 160,000 tons in 2001, with a rising share from 17 per cent to 27 per cent. In total, imports from the US and the EU constituted around 80 per cent of the total imports by Turkey in 2001, which represents 500,000 tons (ICAC, 2003, p. 106). This was more than half of domestic production in that year.

Although the cost of production in the US and the EU (mainly Greece and Spain) was more than the world prices (FAO, 2003, p. 20) - estimated to be three times the world prices in the case of EU (Goreux, 2004, p. 5) - farmers in Turkey, including

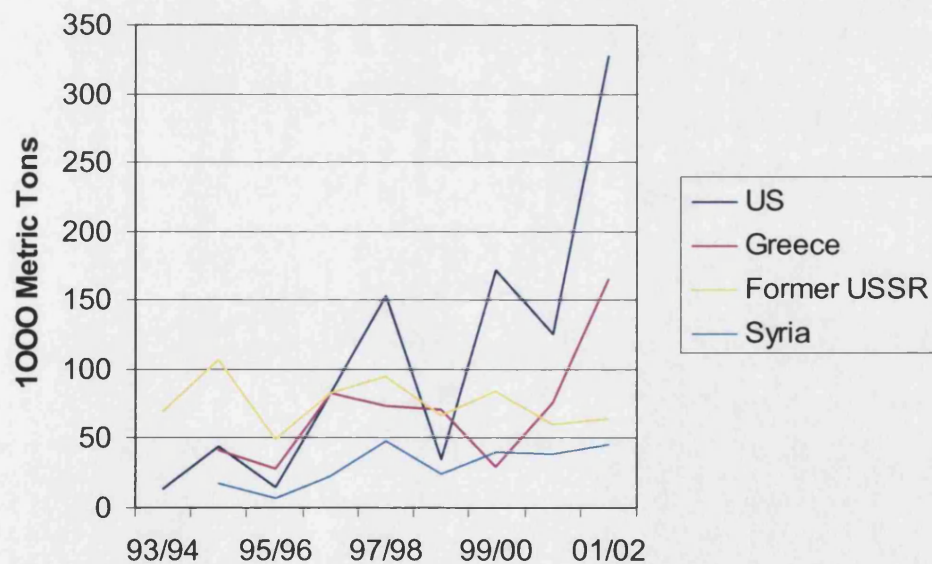
those in Tuz, who are more productive than their EU and US counterparts,¹⁰ have faced thousands of tons of heavily subsidized cotton dumped on the domestic market.

Figure 3-4 Trends in cotton production, import and export in Turkey, 1982-2001.



Source: State Institute of Statistics (SIS, 2002)

Figure 3-5 Turkey's cotton imports by major source, 1993-2002



Source: International Cotton Advisory Committee (ICAC, 2003, p. 106).

¹⁰ In 2003/04, cotton yields was 870 kg/ha in Greece, 820 kg/ha in the US, substantially lower than the yields in Turkey, 1300kg/ha (ICAC, 2004).

3.3.4 Output productivity in cotton

Given that cotton yields have increased while prices have fallen, combining these two trends would be necessary to obtain an accurate picture of output value trends at the crop level. As is shown in Figure 3.6, land productivity improved consistently over the last 25 years. Average lint yields doubled from 740 kilogram per hectare in 1980 to 1460 kilogram per hectare in 2004 (SIS, 1999; SIS, 2006c).¹¹ This represents an increase from an assumed level of 100 in 1980 to 196 in 2004 (see Table 3.2).¹² However, the index for real prices followed a different trend. Starting from the base level of 100, after a period of gradual increase during the 1980s which followed by a slow decline in the early 1990s. It reached the level of 118 in 1997, and then fell rapidly to 59 in 2004. Therefore, between 1980 and 2004, prices fell by more than 40 per cent in real terms.

¹¹ 1 kg cotton lint is produced out of about 2.6 kg cotton raw on average.

¹² Cotton yields in Tuz have followed almost the same trend as those at country level.

Table 3-2 Price, yields and total output value in cotton production in Turkey, 1980-2003

Year	Real Price of cotton* 1980=100	Yield of cotton* 1980=100	Value Productivity* 1980=100
1980	100	100	100
1981	89	100	90
1982	84	110	93
1983	112	116	130
1984	112	103	115
1985	95	105	100
1986	86	119	103
1987	136	123	168
1988	113	118	133
1989	120	114	137
1990	105	137	144
1991	103	126	130
1992	100	121	120
1993	96	143	136
1994	92	145	134
1995	111	151	167
1996	105	142	148
1997	118	155	183
1998	87	157	137
1999	78	148	115
2000	83	181	151
2001	85	180	152
2002	69	184	127
2003	77	194	149
2004	59	196	116

Source: Author's calculation based on (SPO,2006); for yields, (SIS,1999; SIS,2006c).

* Nominal prices have been deflated by the GNP deflator (1987=100) based on (SPO, 2006).

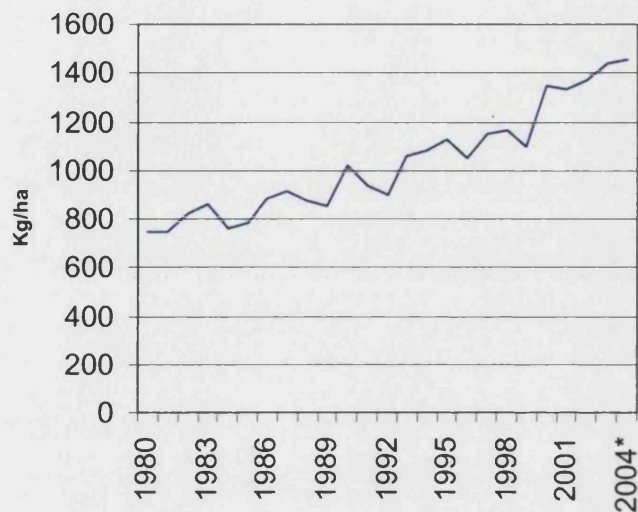
Yield increases have been adjusted to the base yield of 1980 (1980= 100);

Value productivity (yield*prices) has been adjusted to base productivity of 1980 (1980=100).

The index combining prices and yields provides the index for value productivity.

Starting from the assumed level of 100 in 1980, it increased throughout the 1980s, remained somewhat stable in the early 1990s (despite price fluctuations). Then began to rise and peaked at the level of 183 in 1997. Then it fell rapidly to 116 in 2004 (see Figure 3.7), meaning that cotton producers were able to generate almost 60 per cent more value on 1 hectare of land in 1997 than they did in 2004. As such, over the course of the last 25 years, the impact of enormous growth in cotton yields has been largely offset by declining prices, resulting in substantial losses in real output value.

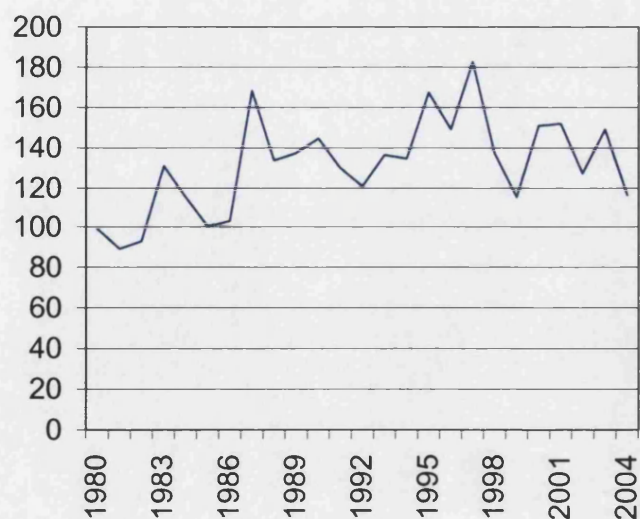
Figure 3-6 Trends in cotton (lint) yields in Turkey, 1980-2004



Source: State Institute of Statistics (SIS, 1999; SIS, 2006c).

* Estimate

Figure 3-7 Trends in value productivity (real) in cotton production in Turkey, 1980-2004 (1980=100)

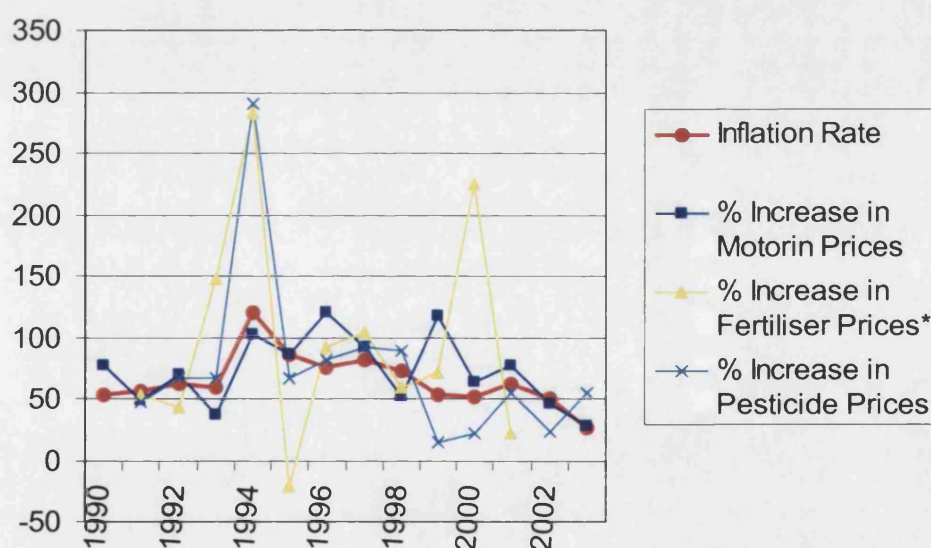


Source: Author's calculation based on (SPO, 2006) and (SIS, 1999; SIS, 2006c).

3.3.5 Rising costs

In addition to declining prices, farmers have also been pressured by increasing cost of production over the last 15 years. As Figure 3.8 illustrates, the price of fuel, fertilizer and pesticide often increased at rates above inflation. The level of increase in diesel prices has been about 10 per cent above inflation rate since 1990. Fertilizer prices fluctuated wildly ranging from -22 per cent below and 283 per cent above inflation rate, while staying 18 per cent above on average for the period between 1991 and 2001 (MARA, 2004). Hence, the margins of cotton producers have been squeezed between falling prices and increasing costs.

Figure 3-8 Price trends in cotton inputs relative to inflation in Turkey, 1990-2003.



Source: Ministry of Agricultural and Rural Affairs (MARA, 2004).

* Based on average annual increase in seven types of chemical fertilizer.

** Based on a pesticide used in cotton production, DELTAMETRIN (Decis2,5EC).

The level of increase in the cost of production has been exacerbated by political factors at the domestic level. The 'structural adjustment' programmes that the

country has periodically faced imposed policies cutting input subsidies. As is analyzed in Chapter II, major input subsidies have been cut or lifted altogether in recent years. For instance, the share of total support in the form of fertilizer, pesticide and seed subsidies fell from one per cent of GDP in 1999 to almost nil in 2004 (OECD, 2006a). More importantly, falling subsidies have affected agricultural credits. Real interest rates in agricultural credits provided by the state's agricultural bank had been favourable to producers until the late 1990s. It fluctuated wildly in mid-1990s due to fluctuations in inflation, yet stayed favourable. However, with the introduction of the IMF-led standby programme, the credit subsidies were lifted in 1999. For the first time, the real interest rates were above zero, averaging around 20 per cent between 1999 and 2003 (MARA, 2004). Hence, over the recent period, farmers have faced declining government support for major inputs, increasing their cost of production. This affected cotton producers particularly more adversely, since they used these inputs intensively in order to maintain their high levels of productivity.

3.3.6 Cost of production at the local level

At the local level in Tuz, the proportion of the different components of the cost has changed along with a general increase in the real cost of production over the last 25 years. The share of major inputs - fuel, seed and fertilizers combined - increased from 10.4 per cent of the total cost in 1978 to 22 per cent in 2003 (see Table 3.3 below).¹³ More significantly, the cost of agricultural credits has risen substantially. It was not even taken into account in 1978 (since the real interest rates were negative),

¹³ The cost calculation for 1978 is based on a farmer cultivating 50 hectares; for 2003, it is based on a farmer cultivating 20 hectares. These figures were also checked against other farms in the village.

whereas, it constituted more than 16 per cent of the total cost in 2003. Hence, the impact of the 'Washington Consensus' cutting input subsidies was visible in Tuz.

Table 3-3 Production cost of cotton per hectare in Tuz, 1978 vs. 2003*

	1978		2003	
	US\$	%	US\$	%
Fuel	112	5.8	327	12.5
Seed	22	1.2	100	3.8
Pesticide	74	3.8	100	3.8
Fertilizer	65	3.4	150	5.7
Driver, Guard, Cook	74	3.8	53	2.0
Land improvements	31	1.6	33	1.3
Depreciation of implements	93	4.8	67	2.6
Maintenance of equipment	-	-	67	2.6
Land tax and protection	23	1.2	7	0.3
Irrigation	74	3.8	33	1.3
Hoeing (labour)	248	12.8	107	4.1
Harvest (labour)	620	32.0	469	17.9
Rent	496	25.7	670	25.6
Cost of credits (real)	-	-	437	16.7
Total	1932	100.0	2620	100.0

Source: (Sirman, 1988, p. 375) and author's field research in 2003.

* 1978 cost figures have been adjusted to 2003 prices by the GDP deflator based on (SPO, 2006) and converted to US\$ (US\$ 1= 1.493 YTL).

The relative weight of labour costs, on the other hand, fell from 44.8 per cent in 1978 (harvest and hoeing together) to 22 per cent in 2003, mainly due to increasing seasonal labour flow from south-eastern Anatolia. Land rents increased in real terms, although not in proportional terms. Adjusting the total costs in 1978 with GNP deflator indicates that real costs in 2003 were 36 per cent higher than those in 1978. Hence, along with changes in its composition - increasing share of inputs such fuel, fertilizers and seeds - the cost of production in Tuz has increased considerably over the course of the last 25 years.

3.3.7 The profitability crisis

Combining the cost of production and the price of cotton, the profitability of cotton production can be assessed at the local level in Tuz. Adjusting the cost figures collected in 1978 by the GDP deflator and converting them into 2003 US\$ prices indicates that total variable costs increased by 7 per cent in real terms. Despite rising fuel, fertiliser and pesticide costs, total variable cost saw only a slight increase due to falling labour costs. As a result, gross margins increased by 50 per cent from around US\$ 790 per ha in 1978 to US\$ 1210 per ha in 2003 (see Table 3.4 below).

However, land and credit related fixed cost increased substantially in the same period. Land rents rose from US\$ 500 to US\$ 670, while cost of credit increased from nil (since the real interest rates were negative) in 1978 to US\$ 440 per ha in 2003. A combination of a growing need for cash flow in an economy of increasingly commodified and intense production cycle, and the government's unfavourable credit policies is accounted for the rising weight of cost of credit. As a result, total fixed costs doubled between 1978 and 2003, putting immense pressure on net margins. The yield of 2.5 t/ha, left a net margin of US\$ 240 in real terms in 1978, representing a profitability rate of 11 per cent.¹⁴ In 2003, the yield of 4.0 t/ha bringing a total output of US\$ 2680 left a net margin of US\$ 60, representing a profitability of only 2.2 per cent (see table 3.5 below).¹⁵ Therefore, the case of Tuz is facing a severe profitability crisis in cotton production.

¹⁴ The price of cotton was between 13.25 TL to 14 TL per kilogram in 1978 (Sirman, 1988, p. 375). The official price was 14 TL/kg.

¹⁵ The local price of cotton raw was approximately 1 YTL/kg (US\$ 0.67/kg) in 2003.

Table 3-4 Comparison of gross and net margins (US\$/ha)* in cotton production in Tuz, 1978 vs. 2003

	US \$	
	1978	2003
OUTPUT		
Marketable yield (t/ha)	2.5	4.0
Price per tonne (US\$)	868	670
Total output (US\$/ha)	2169	2679
VARIABLE COSTS (US\$/ha)		
Fuel	112	327
Seed	22	100
Pesticide	74	100
Fertilizer	65	150
Driver, Guard, Cook	74	53
Depreciation of implements	93	67
Maintenance of equipment	-	67
Irrigation	74	33
Hoeing (labour)	248	107
Harvest (labour)	620	469
Total variable costs (\$/ha)	1382	1473
GROSS MARGIN (\$/ha)	787	1206
ALLOCATABLE FIXED COSTS (\$/ha)		
Land improvements	31	33
Land tax and protection	23	7
Land Rent	496	670
Cost of credits (real interest.)	-	437
Total fixed costs(\$/ha)	550	1147
NET MARGIN (\$/ha)	237	59

Source: (Sirman, 1988, p. 375) and author's field research in 2003.

* 1978 cost figures have been adjusted to 2003 prices by the GDP deflator based on (SPO, 2006) and converted to US\$ (US\$ 1= 1.493 YTL).

Table 3-5 Profitability of cotton production in Tuz, 1978 vs. 2003

	1978*	2003
Total Output (US\$)	2169	2679
Total cost (variable + fixed)	1932	2620
Net surplus (US\$)	237	59
Profitability	10.9 %	2.2 %

Source: (Sirman, 1988, p. 375) and author's field research in 2003.

* 1978 figures have been adjusted to 2003 prices by the GDP deflator based on (SPO, 2006) and converted to US\$ (US\$ 1= 1.493 YTL).

The farmers of Tuz are specialized in cotton production, having achieved one of the world's highest productivity levels over the last 25 years. Yet their incomes have been undermined by continuous price falls on the one hand, and increasing cost of production on the other. Their margins are squeezed so severely that they continue to produce cotton only by ignoring some essential cost components, such as the opportunity cost of land and labour. Since Turkey liberalized its cotton markets, they face the impact of market forces operating at the global level. However, the way cotton markets work has been far from fair to developing country producers. Due to trade distorting subsidies of developed countries, world cotton prices are set unfairly, failing to reward developing country producers who have comparative advantages.

In 2003, around 170 farm households in Tuz produced approximately 1,950 tons of cotton lint on about 1,300 hectares. Based on the margin above, their total operational profit was around US\$ 72,000.¹⁶ By looking at the results of the models assessing the impact of a possible removal of trade disturbing practices on world prices (see section 3.3.2 above), if one can moderately assume that cotton prices would have been 10 per cent higher, the total profit generated in Tuz would have increased by US\$ 330,000. Such a high level of welfare loss for a single village clearly illustrates the extent of the damaging impact of trade distorting policies on developing countries.

¹⁶ Based on the price of 2.5 YTL/kg (US\$ 1.67 per kg) for cotton lint.

3.4 Asymmetrical differentiation

Due to the distribution of state-owned land and relatively low labour/land ratio in the 1960s, land distribution had been relatively equal until the late 1970s. However, the level of inequality seems to have increased over the last 20-25 years. There was a rise in the number of households that do not have access to land. As is shown in Table 3.6 below, 25 per cent of households did not cultivate any land in 1978 (Sirman, 1988, p. 241). By 2003, the number rose to 43 per cent. The percentage of households cultivating 3 to 9 hectares of land fell from 31 to 22 per cent. More significantly, the area cultivated by this category declined from 44 to 27 per cent (see Table 3.6).

Table 3-6 Land distribution in Tuz, 1978 vs. 2003

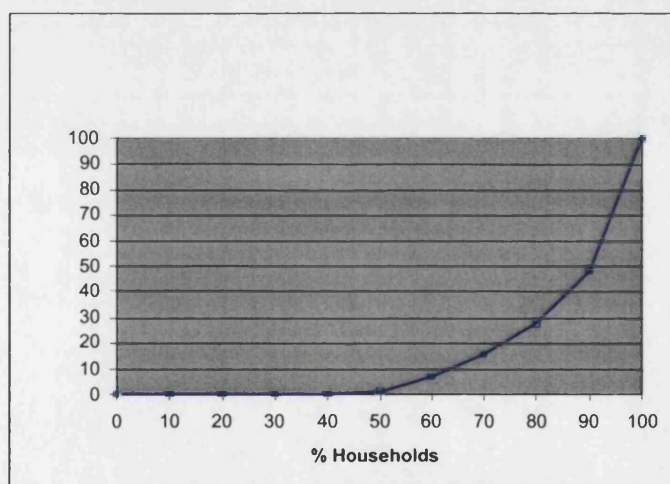
Land operated in 1978				Land operated in 2003			
Area (hectare)	% Households	% Area cultivated	Area (hectare)	% Households	% Area cultivated	Area (hectare)	% Households
0	25	0	0	43	0	0	43
1-3	35	18	1-3	19	8	1-3	19
3.1-9	31	44	3.1-9	22	27	3.1-9	22
9.1-15	6	20	9.1-15	6	17	9.1-15	6
15+	3	18	15+	8	47	15+	8

Source: (Sirman, 1988) and author's field research in 2003

On the other hand, there was a significant rise in the number of households and their operational size in the highest category. Only three per cent of the households cultivated more than 15 hectares in 1978 and their total operation size constituted 18 per cent of the total. In 2003, more than 8 per cent of the households were in that category and their operation size reached up to 47 per cent of the total. Therefore, as the number of households which did not farm any land increased, the operational size of the highest category expanded, the patterns of land distribution have become more unequal (see the Lorenz curve, Figure 3.9).

Expansion in the operation size of the highest category and subsequent decline in the middle, however, does not necessarily imply a process of small-farm differentiation: First, the change in land distribution (through sale, rental and sharecropping markets) did not necessarily take place exclusively among the villagers. Big landowners seem to have expanded their operations towards neighbouring villages. Officially, the total cultivable land of the village is about 600 hectares, but the villagers' plots spread over other villages in the vicinity. In 2003, the farmers of Tuz cultivated around 1,300 hectares of land.

Figure 3-9 Lorenz curve: land operated in Tuz, 2003.



Source: Author's field research in 2003

Second, the process of land accumulation has been taking place mainly through the operation of a rental and sharecropping market, constituting around 40 per cent of the total land in 2003. However, the market was used mainly by relatively large farms (see Table 3.7). In the category of 0 to 2.49 hectare, only eight per cent of the total land was under cultivation through rental or sharecropping arrangements. It was 23 per cent in the category of 2.5-4.99 hectare, 39 per cent in the category of 5-9.99

hectare. The proportion of rented and sharecropped land further increased to 44 per cent in the category of operation above 20 hectares. This clearly illustrates that rental and sharecropping markets are being widely used by large farms as a way of expanding their operational size.

Table 3-7 Land Rental and Sharecropping in Tuz, 2003

Land operated (ha)	Proportion of owned land (%)	Proportion of rented & sharecropped land (%)
0.1 – 2.49	92.5	7.5
2.5 – 4.99	76.7	23.3
5.0 – 9.99	60.9	39.1
10 – 19.99	62.4	37.6
20+	56.4	43.6
Total Average	62.5	37.5

Source: Author's field research in 2003.

Third, although there has been a significant run of operational land accumulation by large farms, it has not led to the disappearance of small farms. In fact, the number of small farms operating below 3 hectares increased from 55 in 1978 (Sirman, 1988, p. 241) to an estimated 60 in 2003 (based on the sample). The total area they operated also increased from 106 hectares in 1978 (Sirman, 1988, p. 241) to around 110 hectares in 2004. Similarly, the number of farms in the category of less than six hectares increased from 94 to around 100. Their operational size in total slightly increased too, from 290 ha (Sirman, 1988, p. 241) to an estimated 310 ha. Therefore, Tuz has been experiencing a process of land accumulation without small farm disappearance.

The fact that the extent of change in ownership patterns has been slower than the patterns of land access through the rental and sharecropping market can be partly explained by the fact that the real land prices have increased enormously over the past two decades. It was reported to be 1,500,000 – 2,000,000 TL per hectare in 1985

(Sirman, 1988, p.266). Based on the price of cotton at that time, 242 TL/kg, this was equivalent to the price of 6,250 to 8,250 kg cotton, the harvest of around 6 – 8 hectares of land. In 2003, land prices were between 2,500 and 3,000 YTL which was equivalent to the price of 25,000 to 30,000 kg cotton, the harvest of 14 to 17 hectares of land. It is clear that land prices have been getting substantially higher, making land purchases relatively more difficult. In addition, falling profitability has made it even more difficult for any farmer to accumulate land.

The enormous increase in land prices and the persistence of small farms seem to be a linked phenomenon. The price of cotton in general and the profitability of production in particular is a major factor affecting land prices. Prices and the profitability were high until the late 1990s, when land prices went up, making it relatively more difficult for large producers to accumulate land. At the same time, since farm-incomes were also higher, the opportunity cost of leaving agriculture for small farms got higher too, which in turn reduced the propensity of small farms to sell their land. Hence, when the sector achieved high output growth and profitability, the counter productive factors of increasing land prices and low land supply by small farms begin to operate, making the differentiation process through land concentration more difficult to take place.

Since the sector has been performing poorly since the end of the 1990s, there seems to be different factors inhibiting the process of differentiation. On the demand side, due to the profitability crisis, the accumulation capacity of large farms has weakened, so has their demand for land. On the supply side, the opportunity cost of leaving agriculture for small farms declined too. However, for many of them, it was still

higher than the opportunity cost of staying in agriculture. For a household owning two hectares and having a workforce of two labour equivalent, renting out the land and working in the harvest season would provide a total income of around US\$ 2400,¹⁷ close to the minimum wage rate in urban areas. As long as their chances of finding non-agricultural employment are low, farming continued to be the last resort of income activity.

TARIS, one of the biggest farmer associations in the country, also plays a major role in preventing small farms from disappearance. It has 5087 members in the district, and 88 members in the village. It provides inputs, credits and acts as a major purchaser of cotton in the market. It supplied a total of around US\$ 0.8 million agricultural credits to its members in Tuz in 2003.¹⁸ The existence of such a big credit provider prevents the operation of credit-bondages created by private money lenders charging high interest rates in return for collaterals in the form of land.¹⁹ TARIS is also the biggest purchaser of cotton in the province with a market share of 53 per cent in 2003, which is large enough to set local prices.²⁰ This prevents private buyers from speculating on prices which are more likely to harm small farms since they often have to sell their product immediately after the harvest. Thus, the existence of an effective farmer's association performing essential functions protect small farmers from the potential impact of 'extra-market' forces in the form of credit bondages and price speculations.

¹⁷ Rent of land was approximately 1,000 YTL/ha (US\$ 670) in 2003 and an adult cotton picker could make up to US\$ 550 in season (based on 100kg/day, 45 days/season and US\$ 12/day)

¹⁸ Based on official information collected from TARIS in Söke. The credits are provided in the form of fertilizer, pesticide, seed, and also for the purposes of field preparation, fuel purchase, sowing, hoeing and watering.

¹⁹ Villagers state that a private money lender may charge a yearly interest rate of up to 150 per cent (eight per cent monthly) while the market rate was around 40 per cent in October 2003.

²⁰ It purchased about 66 million kg cotton from the Söke district in the 2002/2003 season (based on the official information collected from TARIS in Söke).

3.4.1 Small-Farm Efficiency?

The level of land productivity and the real cost of production do not seem to be significantly affected by farm size in Tuz. Sirman also reported that the scale of operation did not affect yields in the 1980s (Sirman, 1988, p. 357). As is analysed above, cotton yields are determined by various ecological, technological, infrastructural, agronomic factors and the scale does not seem to have a major impact.²¹ As for the cost of production, small family farms are argued to have labour related cost advantages as they do not rely on external labour. However, Tuz shows that even small farms have to use external labour in certain seasons. It also illustrates that given the abundance of labour demand in the harvest season, the operational cost of family labour is equal to the wage rate. Hence, from a productivity and cost perspective, small farms are not more efficient than large farms.

According to Sirman, small producers did not include labour cost in their cost accounts in 1978, as they do not make direct payments for such costs (Sirman, 1988, p. 375). Likewise in 2003, small-scale family farms tended to ignore labour costs. However, the opportunity cost of labour cannot be ignored in a case where there is an abundant demand for labour. In the research sample of 130 households, the size of the labour force was 412.5 (adult labour equivalent²²). The total cotton needed to be

²¹ However, it might be the case that the range of farm size in Tuz is below a certain level which would constitute a threshold beyond which scale has an impact on yields. Nevertheless, in a private interview, the owner of one of the largest farms in the region, operating on 250 hectares, stated that the average yield in his fields was 3,900kg/ha (cotton raw), which was very close to the average in Tuz.

²² Based on the count of every individual (without terminal illness) between the ages 16 to 60, plus counting persons between the ages 10 to 15 as 0.5.

harvested in the sample was approximately 2,300,000 kg.²³ Given that an average adult can harvest 100 kg cotton per day, in a harvest season of 45 days, the size of labour force required for the task would be at least 510 adults. Therefore, even the most extreme case of the participation of the entire labour force would not be adequate to finish the harvest. Therefore, the opportunity cost of family labour (in harvest) was equivalent to the labour wage. In the harvest season, workers are paid based on the amount of cotton they pick, 0.175 YTL/Kg in 2003. The daily wage rate would be around 17.5 YTL (US\$ 12) (based on 100 kg harvest).

At the household level, the average size of labour force increased as the farm size increased. The number of labour equivalents for households in the 0.1-2.49 hectares category was 2.1. It was 2.7 for households in the category of 5 - 9.99 hectares. It further increased to 3.2 and 4.1 in the categories of 10 - 19.99 and 20+, respectively. Therefore, there was a linear relationship between farm size and the size of the labour force at household level.

Based on the peak period for labour demand (i.e. harvest season), and average labour productivity during the harvest, the amount of land a family farm could harvest without relying on external labour can be calculated. In the harvest season of 45 days, an average adult labourer can harvest 4,500 kg cotton. Given that the average yields are 3750 kg/ha (cotton raw), only households in the category of 0-2.49 could do the harvest without the need of outside labour. For an average-size household in the 2.5-9.99 hectares category, up to 3.1 hectares could potentially be harvested by family labour. For an average-size household in the 10-19.9 hectares category, up to

²³ Based on the total area of 610 hectares and the average yields of 3750 kg/ha (cotton raw).

3.8 hectares could be harvested by exclusively relying on family labour. Therefore, apart from the smallest farms, relying on external labour in the harvest season is unavoidable (see Table 3.8, column 5).

Table 3-8 Relationship between size of farm and quantity of labour in Tuz, 2003

Land operated (ha)	Household size	Adult equivalent*	Labour equivalent**	Maximum amount of land cultivable by exclusively relying on family labour***
0	3.02	2.6	1.9	-
0.1-2.49	3.33	3.0	2.1	2.5
2.5-4.99	3.67	3.3	2.6	3.1
5.0-9.9	4.25	3.8	2.7	3.2
10-19.9	5.00	4.4	3.2	3.8
20+	6.25	5.4	4.1	4.9
Averages	4.25	3.7	2.8	3.5

* Based on counting every individual over the age of 15, plus counting those less than 15 years of age as half.

** Based on the count of every individual (without terminal illness) between the age 15 to 60, plus counting individuals between 10 and 15 as 0.5.

*** Based on the formula:

Labour Equivalent* Unit-Labour Harvest Capacity (4500kg/season)/ Cotton Yield (3750kg/ha).

However, organizing and managing labour was easier for small-scale producers as compared to large-scale farmers. Since the demand for labour peaks in the harvest season, arranging the necessary amount of labour to undertake the harvest on time is more difficult for large-scale producers. Small farms organize labour groups in the village to pick the harvest of each participating household. Large farms have to organize labour from outside the village. They tend to arrange it in winter to be ready for early September. They often organize labour from other parts of the country, mainly from the interior of the Aegean region and south-eastern Anatolia. They make advance payments to some middle-men, who organize the workers and manage their

relations with the farmer during the harvest. In September 2004, there were around 850 migrant labourers harvesting cotton in Tuz.²⁴

Middle and large farms face certain risks in relation to labour. First, the labour they organize from other parts of the country may never show up in the harvest season. As their arrangements are based on tacit agreements and an informal deposit paid by the farmer,²⁵ there is no guarantee that the agreed number of workers will turn up. Second, there is also no guarantee that the workers would finish the harvest. Dissatisfied with the price (they may get a better price from another farmer or in another region) or with the yields (higher yields increase their picking performance, so they prefer fields with high yields) they may leave the field in the middle of the harvest. Third, the wages may go up during the harvest season. If yields are better than average or weather is not favourable because of rain, the demand for labour peaks and the cost of labour increases.²⁶ Fourth, the quality of a labourer's work may turn out to be poor. Since the wage rate is based on the amount of cotton picked, workers may leave some residue of unpicked cotton behind as they hurry to harvest the dense parts of the plant, which may result in significant losses. Nevertheless, these risks do not apply to all farmers, since some of them work with the same group of labourers with whom they have established good relationships.

²⁴ However, in that particular year, the number of migrant workers was said to be lower than in previous years.

²⁵ I was told that some farmers pay up to US \$3000 in advance in order to arrange 15 to 20 workers in the winter season. A couple of farmers stated that they have lost significant sums of money as the workers they had agreed did not turn up in the harvest season.

²⁶ Rain affects the quality of cotton badly. It also makes it difficult for workers to work effectively on the fields. Therefore, in rainy harvest seasons, all farmers want to finish their harvesting as quickly as possible, soaring the demand for labour,

Almost all farmers in the research sample stated that organizing labour is a major problem and thus cotton combine harvesters, which have become available in recent years, should be used widely. Large-scale producers consider buying a harvester for their own use, while small-scale producers think that harvesters would reduce the demand for labour which would then reduce their labour cost. The price of a harvester ranges between US\$ 60,000 (for mechanical ones of Uzbekistan origin) and US\$ 250,000 (for computerized ones of usually US origin), which are not affordable by small and medium size farms. Although there was no field in the village harvested by a harvester at the time of the survey, the number of mechanical harvesters imported from Uzbekistan was increasing in the region.²⁷

A sudden increase in the numbers of these harvesters might lead to some significant change in the labour dimension of cotton production both at the household and regional levels. Based on the information given by the regional distributor of mechanical harvesters, an advanced harvester could harvest up to 10 hectares per day, displacing about 400 workers. A mechanical harvester on the other hand could harvest 4 hectares, replacing the need for 160 labourers.²⁸ Hence, the introduction of a large number of harvesters may lead to a change in the production function of cotton from being labour intensive to technology intensive.

In sum, the process of differentiation has been asymmetrical in Tuz. There has been some significant land accumulation (mainly through rental and sharecropping

²⁷ Based on the information given by the regional distributor of mechanical harvesters, four harvesters were imported in 2002, while the number rose to 35 in 2003.

²⁸ Yet there are certain constraints in relation to the use of harvesters, since they require specific plantation practices. Only certain cotton varieties are convenient for mechanical picking, they also require a certain type of transport, storing and ginning facilities.

markets) while small farms have continued to predominate in numbers. However, this should not suggest that small farms are more competitive or more efficient than large farms. As was also shown in the previous study in Tuz, there seems to be no strong relationship between farm size and land productivity. The labour related advantages of small farms did not give significant cost advantages to family farms either, since the opportunity cost of family labour was equal to the wage rate. The asymmetry was mainly due to the two counterbalancing factors hindering the differentiation process in the periods of both high and low agricultural growth. When agricultural growth was high enough to create big surpluses, the demand for land increases which rises land prices. This in turn makes it increasingly more difficult for large farms to accumulate land. On the supply side, high agricultural growth and relatively high farm incomes increase the opportunity cost of leaving agriculture for small farms. This in turn discourages them to sell their land, constraining the differentiation process from the supply side. On the other hand, in the periods of slow agricultural growth, the accumulating potential of large farms weakens. Therefore, since there has not been any substantial labour transition driven by demand from the non-agricultural sector, the land accumulation at the operational level has taken place without the disappearance of small farms.

3.5 Conclusion

The farmers of Tuz, who specialized in cotton production, have achieved one of the world's highest yields over the last 25 years. The example illustrates that achieving such levels of land productivity requires a combination of favourable ecology (convenient average temperatures, precipitation rates and humidity), irrigation facilities to overcome water deficiencies, intensive use of chemical fertilizers to

overcome nutritional deficiencies in the soil, improved seed varieties (biotechnology) developed specifically for the local environment, mechanical technology, and farmers knowledgeable about precise agronomic practices and crop management. However, it has also been shown that even achieving such high levels of productivity may not be sufficient to realize high levels of income. Their enormous progress has been largely offset in economic terms by sharp falls in prices and increasing cost of production.

As with the majority of agricultural commodities, world cotton prices have been falling steadily over the last two decades both in nominal and real terms. There are both market and extra-market (political) factors that are responsible for the downturn. The negative impact of economic factors such as low price and low income elasticity of demand, the low price sensitivity of supply combine with increasing market share of synthetic fibre have been putting pressure on prices. More importantly, political factors, arising from trade and domestic policies of developed countries, have been suppressing prices artificially. Heavy subsidies in developed countries enable their farmers to sell cotton below their cost of production. The dumping of these products into world markets further leads to a decline in prices, leading to substantial welfare losses in developing countries.

Tuz has also shown that, like many other producers in developing countries that have experienced 'structural adjustment' policies, the cost of production has increased substantially. Government support in inputs, such as agricultural credits, fertilizers and seeds have been removed as a result of 'structural adjustment' programmes aiming at cutting government spending. Increasing cost of production

further squeezed the margins of farmers. At the local level in Tuz, profitability has fallen to as little as one digit marginal levels. Driven by declining prices and increasing cost of production, the situation at Tuz has illustrated a case of serious 'profitability crisis' in agriculture.

The Tuz history has also shown that without substantial demand for labour transition arising from the non-agricultural sector, the process of small-farm differentiation is slow or stagnant. It has illustrated that the predominance of small farms is not necessarily a function of their superior efficiency, since there seems to be no significant relationship between farm size and land productivity in this case. The number of small farms continues to predominate merely because the demand for labour from the non-agricultural sector is not big enough to encourage them to leave agriculture. On the other hand, the process of land accumulation is counterbalanced by increasing land prices and decreasing land supply of small farms in periods of high economic growth, and by decreasing accumulation potential of large farms in periods of low growth and recession. Hence, without the non-agricultural sector stimulating the process of transformation from agriculture, the small-farm differentiation cannot be driven by the transformation within agriculture alone.

The next chapter turns to another longitudinal case study which exemplifies a totally different ecological, social and economical setting as compared to that of Tuz. The village of Sakal in Central Anatolia illustrates a transformation process in a severely unfavourable ecology, combined with a lack of technological progress and infrastructural development. Unlike the case of Tuz, low productivity and low-value agricultural activities dominates its agricultural economy, illustrating a low degree of

transformation within agriculture. However, the case provides a good ground to analyse the various aspects of labour transition from agricultural to non-agricultural activities in rural areas.

Chapter IV - Non-agricultural Economy in Non-favourable

Ecology: Sakal

Ecological factors play a significant role in the process of rural transformation. More than 50 per cent of cultivable land in Turkey is in arid and semi-arid agro-ecological zones, where there is low potential for agricultural development. In central Anatolia (the regions of middle-south, middle-north, middle-east and north-east), low precipitation (275 to 375 ml/year), especially during the growing period, is a major constraint (TSMS, 2004). Similarly, in high altitude farming areas of eastern Anatolia, low temperatures and high prevalence of cold stress are major obstacles for agricultural development. The average growing period can be as short as 60 days a year, which is only suitable for low-yield cereal production. In these regions, overcoming ecological constraints and achieving high yields and high-value cropping patterns is extremely difficult.

Agricultural activities alone fall short in generating adequate income for millions of rural households in these regions, especially in areas where unfavourable ecologies combine with high population density. However, millions of rural households are still engaged in agricultural activities in such areas. The level of their labour productivity is low, mainly as a result of constraints in land productivity, and their contribution to the national gross value-added is almost insignificant. In such areas, non-agricultural activities are often seen as crucial for alleviating poverty and un/underemployment. They are also considered to be an alternative to rural-to-urban

migration. However, is the transition to non-agricultural activities a remedy for or a symptom of lack of agricultural development?

The emergence and the growth of non-agricultural activities in rural economies is a complex phenomenon. On the rural side, the transition is strongly linked to the state of the agricultural economy, whereas on the urban side, it depends on the favourability of the macro-economic environment in manufacturing and services sector. Where the transition to non-agricultural activities is underway, they may face serious problems in relation to productivity, under-employment and inequality. Hence, this chapter attempts to shed light on the multidimensional process of the transition from agricultural to non-agricultural activities in rural areas.

The case history of Sakal in central Anatolia, which will be put forward in this chapter, is the account of a village where non-agricultural activities emerged almost half a century ago. The long history of these activities, engaged in by men and women, provides a good opportunity to analyse various transitions these activities have undergone. It illustrates the huge socio-economic dynamism they can create within rural economies. The case history also demonstrates the mixture of linkages between and within agricultural and non-agricultural activities.

This chapter is organized as follows. The next section introduces Sakal. It provides a short history of the process of transition to non-agricultural activities in the village. Then, in the light of recent fieldwork, it analyses the current phase of these activities. Second, the chapter investigates major factors, of rural and urban origin, that affect the process of the transition to non-agricultural activities in rural areas. Third, it

highlights various economic and social roles that these activities play, from urban and rural perspectives. Fourth, it analyses the process of small farm differentiation in Sakal's context.

4.1 Green revolution missing ¹

Sakal is located in the province of Kayseri. It lies on a plateau skirting the volcanic mountain Erciyes with an altitude of 12,860 feet (3,917 metres). It has a dry agro-ecology and climate showing steppe characteristics with average temperatures of 21°C in summer and -1°C in winter (TSMS, 2000, p 113). Cold stress is a major constraint too; the number of frosty days is as high as 120 days a year (TSMS, 1996, p.46). There is no irrigation facility in the village, and production is fully dependent on rainfall which is one of the lowest in Turkey (390 ml per year). The growing period is around 100 days. The quality of its soil is poor, made up of volcanic residues.

In the summer of 2003, I undertook a population survey with the existing 137 households in Sakal. For each household, a schedule including demographic features, asset ownership and income activities was canvassed. The research has illustrated the general trends that the village has undergone since it was first studied by Stirling at the beginning of the 1950s (Stirling, 1965).

In the 1950s, the economy of the village was isolated from national markets, and the peasants were undertaking agricultural production mainly for subsistence (Stirling,

¹ This section draws partly on author's paper published in International Journal of Agricultural Resources and Governance (Karapinar, 2007).

1965, p. 46). The variety of the cropping pattern was limited to wheat, barley and millet. Production was still undertaken with ancient methods which generated very poor yields. A light wooden plough attached to a pair of oxen could only produce one metric ton of cereals per hectare every other year (due to a two-year fallow system) (Stirling, 1965, p. 44). Low value production for subsistence at low productivity characterized the primitive stage of agricultural economy in Sakal.

It appears that the process of agricultural transformation has been stagnant over the last half century. In 2003, around half of the total cultivable land was left fallow and uncultivated. The majority of the cultivated area was still under wheat and barley along with some potato production. Yields were still extremely low. Although tractors were introduced in the late 1970s, the village has been untouched by the Green Revolution through the intensive use of chemical fertilizers, high quality seeds and irrigation. Hence, wheat yields increased only marginally to 1400 kg per hectare, equal to the yields in the Fertile Crescent 10,000 years ago. Considering that the land is cultivated only every other year, annual average production on one hectare of land was 700 kg/ha. Therefore, since the village has not benefited from modern chemical and biological technology and infrastructural development, its agricultural economy has remained dependent on ecological circumstances which were not favourable for the transformation within agriculture.

4.2 Transition to non-agricultural activities

The process of labour transition from agricultural to non-agricultural activities began as early as the 1950s, and followed two different paths. First, the population of the village has been falling due to permanent rural-to-urban migration. Secondly, there

has been a process of transition to non-agricultural activities which followed two major channels: the first one was through the temporary migration of men seeking employment in the urban construction sector; the second was through the development of carpet weaving by women in the village. By 2003, it appears that the labour transition to non-agricultural activities has continued over the last half century. However, there have been significant changes in the nature and type of these activities.

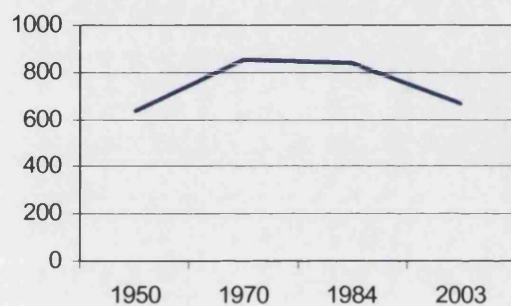
4.2.1 Rural to urban migration

In the 1950s, Stirling reports that permanent migration to towns was rare, since temporary migration was more acceptable to households in terms of the cost and risk assessment. The cost of keeping a family in the village was relatively low and having some land – however unproductive – was vital for food security given volatile job markets in the towns. However, permanent migration to towns began to accelerate in the 1960s. About 65 adult men had migrated between 1950 and 1970 (Stirling, 1974, p. 211). Most of them started as temporary migrants. When they learned how to survive in towns and had established business networks to secure relatively regular work, they took their families and moved from the village permanently. As the incidence of permanent migration increased, it became easier for those staying behind in the village to follow the previous examples (Stirling, 1974, p. 213).

Nevertheless, the size of the village population continued to increase until the 1980s when it began to decline. Between 1950 and 1970, it increased from 633 to 852 (Stirling, 1974, p. 201) and stayed somewhat stable until the 1980s. In 1986, Stirling reported that 840 people resided in 143 households. There were also 650 people (165

households) originally from Sakal living outside the village, mainly in big cities, such as Mersin and Antalya (Stirling, 1993, p.6). In 2003, the population of the village appeared to have been decreasing. At the time of my survey, 664 people lived in 137 households. Average household size decreased from 5.8 persons in 1986 to 4.8 in 2003; it is shown in Figure 4.1 that the village population has declined to its level in 1950.

Figure 4-1 Population of Sakal, 1950-2003



Source: Stirling (1974, 1993) and author's field research in 2003.

4.2.2 Labour move-out

At the beginning of the 1950s, there were a few households engaging in non-farm activities in the village. For men, the most common alternatives were masonry, carpentry and blacksmithing (Stirling, 1965, p.60). Young men learned traditional skills through apprenticeship from older experts in the village. Weaving was the craft exclusive to women; the output was such as rugs, saddlebags and grainsacks for domestic consumption, (Stirling, 1965, p.59). The skill had been transferred from one generation to another through mothers and daughters. There were also some short-lived shops. In 1950, about 15 per cent of households relied mainly on income from non-agricultural activities, whereas 22 per cent drew both on agricultural and

non-agricultural income. About 47 per cent still depended on agriculture for their livelihoods (Stirling, 1965, p.69).

The pace of labour transition rapidly increased after 1950. Increasing labour demand from the construction sector in urban areas led many building craftsmen and unskilled labourers in the village to seek temporary employment in nearby towns. There were 39 semi-skilled men working in the construction sector, most of them plasterers, a relatively easy skill to pick up (Stirling, 1965, p.65).² For households which were in the position of surplus labour relative to their farm size, seeking jobs in the construction sector was an easy way of finding non-agricultural employment. Between 1950 and 1970, the population of Sakal increased from 633 to 852, a 35 per cent rise. However, the number of semi-skilled labourers working in the construction sector rose more rapidly, from 40 to around 150, growing by more than 375 per cent (Stirling, 1974, p. 201).

In 2003, there were 129 labourers working in the construction sector out of a total labour force of 346 (including men and women between the age of 15 and 60). Accordingly, in more than 70 per cent of households, there was at least one construction labourer. It must be noted that the remaining households which did not have any construction labourer were not necessarily farmers. More than 60 per cent of them were elderly couples, widows or government officials. More than 80 per cent of the other households participated in the construction sector in 2003, confirmation that the proportion of non-agricultural households continued to grow since the 1980s.

² The first plasterer, who learned the skill in the 1940s, taught it to his friends and relatives. Then, the skill widened within the village (Stirling, 1965, p.65).

4.2.3 Women's role shifting

Carpet weaving which had always been a traditional craft in Sakal which was commercialized during the 1960s. By 1970, it flourished in a way in which, for the first time, women began to be involved in direct income-generating activities. In that respect, they started to utilise their labour in an effective way through long working hours in tough working conditions. The activity developed like a putting-out industry (Stirling, 1974, p. 206). Entrepreneurs, usually from the town of Kayseri, provided materials necessary for production, while the women provided the labour. Although at the end of the production chain, the women, in their workshops at home, were linked to the larger urban manufacturing sector. They worked in a physically isolated way in the sense that they never got into contact with the other parts of the chain, apart from their employer, who provided them with the inputs and paid their wages. However they were economically linked to urban chains such as manufacturers, producers of looms and yarns, wholesalers, retailers and middlemen, who were competing to meet increasing demand for hand-made carpets. By 1977, carpet weaving had already become a widespread non-agricultural activity. Around half the total of 120 households was engaging in commercial carpet weaving, albeit in various degrees; 35 households had looms in their own houses while 13 households were sending one or two female members to the houses of other loom holders (Ayata, 1982, p. 117).

However, over the last two decades, women's involvement in carpet weaving seems to have almost disappeared. Around 60 households were weaving carpets at the end of the 1970s. In 2003, there were only 11. Since the decline was quite recent, many

women who knew how to weave carpets were unwilling to engage in the activity.³ I shall discuss the main causes of the decline in the next section.

Women seemed to have turned to dairy production instead. Many households had begun to earn income by selling dairy products, mainly milk, to the nearest city market in Kayseri 32 km away. Four middle-men from the village collected the milk, then took it everyday to the town.⁴ Depending on the season, each middle-man distributed up to 150 litres of milk per day. At the time of my survey, 74 households were selling milk on a regular basis,⁵ with an average of 12 litres per day. As milk production became commercialized, it took over the position of carpet weaving as preferred non-farming activity.

In sum, the development of non-farm activities is not a new phenomenon in Sakal, going back to the early 1950s. Since their first emergence, they have become the dominant form of income activity in the village. In 1950, half the households relied entirely on agriculture, only 10 per cent in 2003. In 1950, around 15 per cent of households depended entirely on non-agricultural activities; in 2003, more than half the households derived the bulk of their income from non-agricultural activities. In addition to this trend, there has been some rural-to-urban migration which has led to some decline in the absolute size of the labour force in the village. Hence, over the last half century, Sakal has experienced a process of transformation from agriculture through the emergence of non-agricultural activities and rural-to-urban migration.

³ However, as the years pass by, the skill may face extinction altogether, as mothers are no longer teaching the skill to their daughters.

⁴ They were buying the milk at 0.3 YTL (US\$ 0.2) per litre, and selling it for 0.4 YTL (US\$ 0.26), with a 33 percent margin.

⁵ Apart from around four months of the year during which cows could not be milked.

4.3 Determinants of non-agricultural activities

Various factors have affected the process of transition from agricultural to non-agricultural activities in Sakal. First, the low income potential of the agricultural sector was a major influence. Second, labour demand from the non-agricultural sector affected the pace and the extent of the process. Third, improvements in the transportation and communication infrastructure brought new opportunities and stimulated the transition. On the other hand, non-agricultural activities that the villagers in Sakal engaged in have encountered challenges from urban sectors too. Low level of educational attainment amongst labourers seems to be the biggest obstacle that prevents a transition to high-productivity non-agricultural activities.

4.3.1 Agro-ecological push

The level of agricultural incomes has been consistently low relative to non-agricultural incomes, which pushed the vast majority of households away from agriculture, partially or fully. In 1950, Stirling reported that a single semi-skilled labourer could earn twice as much as the value of grain produced in 4 hectares (4 tons), which was the average cultivated area per household at the time (8 hectares in total, leaving half fallow). In 2003, the bulk of cultivated land was still under cereals, mainly wheat. 1 hectare of land produced around 1400 kg wheat, which generated 400 YTL (US\$ 280) at 2003 prices. The net income generated from wheat, deducting the cost of production, if it is taken very optimistically as 50 per cent, was around US\$ 140. Given that the plots were cultivated every other year, average annual net income that one hectare produced was US\$ 70. On the other hand, the common wage rate in the building sector was US\$ 13 per day. Hence, slightly more

than five days of work of a single unskilled labourer in the construction sector was providing a yearly income of a 1 hectare of land in Sakal.

In 2003, the average number of days each household had labourers working in the building sector (at one year before the survey) was 135 days, which can be taken as the opportunity cost of staying in agriculture for an average household. It was equal to the net income equivalent of having 26 hectares of land. Looking at the land distribution pattern in the village, only two households owned more than 26 hectares in 2003. Among households who engaged in agriculture (excluding landless households), around 20 per cent owned between 10 to 20 hectares, 17 per cent owned between 5 to 10 hectares. More than 50 per cent owned less than five hectares, generating a net income of less than US\$ 350 a year, smaller than the monthly income of a labourer working in the construction sector. Such low levels of income in agriculture mean that the opportunity cost of leaving agriculture, partially or fully, even for those households having relatively large farms (above 20 hectares) is lower than the opportunity cost of relying fully on agriculture, given the wage rates and the average number of days labourers from Sakal could find employment in the construction sector.

Consistent with the opportunity cost calculation above, there is an inverse relationship between farm size and participation in non-farm activities in the construction sector. Non-agricultural activities are taken more frequently by households which had little or no land. On average, every 1 person in 4.4, belonging

to a landless household worked in the construction sector in 2003.⁶ Every 1 person in 5.9, belonging to a household owning 10 to 20 hectares, and 1 person in 14.9 from households owning more than 20 hectares, also worked in the sector. Therefore, a member of a landless household was around three-times more likely to work in the construction sector than a member of a household owning more than 20 hectares. Since those households having little or no land had a lower opportunity cost of leaving agriculture relative to those who had larger farms. As farm size decreases the incidence of participation in the construction sector increases in Sakal.

A similar relationship existed in respect of carpet weaving too. The average farm size of households engaging in carpet weaving was 0.8 hectares (Ayata, 1982, p. 121). Such a small piece of land produced around one ton of cereal every other year, which would hardly save a household from starvation (Ayata, 1982, p. 122). Hence, relatively low-income households were more frequently engaged in carpet weaving (Ayata, 1982, p. 112). Since the level of wages was below that of unskilled worker in the building sector⁷ and the working conditions were difficult,⁸ it was not a widespread activity amongst relatively wealthier households. In 2003, there were only 11 households remaining in the activity, and the majority were the poorest in the village. Amongst them, 8 out of 11 were landless households, indicating that carpet weaving continued to be a coping strategy for relatively poor households rather than a strategy to accumulate wealth.

⁶ There were 59 households, around 40 per cent in total, having no land in 2003.

⁷ It was reported that even unskilled workers in the construction sector could earn twice as much as a weaver (a skilled worker could earn three times more) (Ayata, 1982, p. 152).

⁸ Carpet weaving was considered to be very hard work as it required keen attention to detail and long working hours. It also required sacrificing other duties, such as looking after children and the elderly, and working on the farm.

4.3.2 Urban pull

The macroeconomic situation in urban areas, particularly in the construction sector, has always determined the direction of labour migration and the stability of non-farm incomes in Sakal. As early as the 1950s, Stirling reported that because of the slow-down in the sector and the general shortage of jobs in towns due to the 1950 elections, migrants returned to the village without having been able to work much (Stirling, 1965, p.68). However, in the 1960s and 1970s, national growth along with rapid urbanization generated a boom in the construction sector, which gave rise to demand for labour. As a result, real wages in the sector rose sharply, which impacted on the village economy. (Stirling, 1974, p. 206).

Similarly in 2003, the provision of full employment was poor due to weak demand from the sector. The average time a household had a member working on construction was 4.5 months (within twelve months before the survey).⁹ This directly impinged on the macro-economic environment in the urban sector. The building sector has been severely affected by financial crises over the recent years. It saw a decline of 13 per cent and 6 per cent in 1999 and 2001 respectively (SPO, 2006). The total number of labourers working in the sector at national level declined from 1.4 million in 1988 to less than 1 million in 2002 (SIS, 2006a). Since then it has recovered slowly, approaching to a level slightly above 1 million in 2004 (SIS, 2006a). Since the employment elasticity of the building sector is high, any significant change in its growth has a direct impact on labour participation in the sector. Like in

⁹ For households having more than one member working in the construction sector, the aggregate number of months was taken here.

the 1960s and 1970s, the extent of the transition to non-agricultural activities in the village is dependent on the strength of urban demand for labour.

4.3.3 Diminishing boundaries

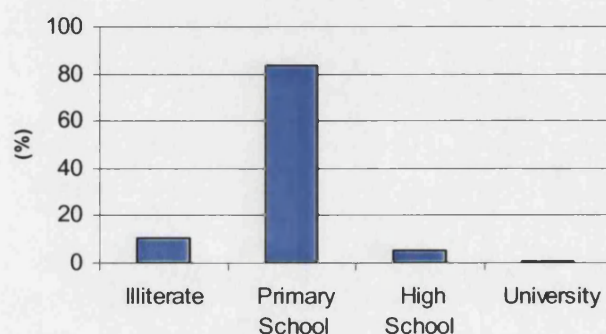
The physical boundaries of non-farm activities have gone beyond the village and local labour markets towards national and even international labour markets. At the time of the survey in 2003, there were 58 male labourers from 52 household working outside the village. In the twelve months before the survey, 85 households had at least one member who worked more than one month outside the village. Amongst them, 24 households had at least one labourer working in the nearest province, Kayseri, while 34 households had members working outside the province in other parts of Turkey. Moreover, 26 households had at least one member who had worked in a foreign country, 16 in Russian Federation, 4 in Cyprus, 3 in Libya, 2 in Dubai and 1 in Kazakhstan. A total of 67 households had at least one member who had work-experience in at least one foreign country in their lifetime.

Improvements in transportation and telecommunication infrastructure have played a significant role in the widening scope of off-farm activities. In 1950, the some 30 km distance from the village to Kayseri took 6 hours and there was no regular transport means (Stirling, 1965, p.16); in 2003, the journey took half an hour on minibuses passing through the village every half an hour. This has increased labour mobility. Similarly, mobile phones are being used extensively to keep work-networks functioning effectively. Labourers no longer have to be physically present in urban areas to gain information about job availability. Around 80 per cent of households participating in the construction sector had at least one member with a mobile phone

in 2003. Without leaving the village, labourers could search for employment all over the country. Similarly, when an employer had vacancies, getting in touch with labourers in the village, or working in other parts of the country, was instantaneous. Therefore, the isolation of the village, and thereby the labourers, in physical and communication terms, has been diminishing with improvements in transportation and communication infrastructure

However, the poor level of educational attainment of the labour force has continued to be a major obstacle preventing the transition to higher productivity non-agricultural activities and entrepreneurship. More than 94 per cent of the population in working-age had no more than primary school education (see Figure 4.2). This includes illiterates constituting 10 percent of the total. Only five per cent of the total, mainly among those below 25 years of age, had high school education, and only two men had university education in the village. As for the distribution based on gender, all illiterates were women and there was no woman having high school or university education. Similar to the averages in rural Turkey in general (see Figure 2.8), the level of educational attainment is poor in Sakal which seems to prevent labourers to move to more lucrative non-farm activities in both urban and rural areas.

Figure 4-2 Distribution of Sakal's population of working-age by education, 2003



Source: Author's field research in 2003.

4.3.4 Urban competition

Non-agricultural activities have also faced challenges from urban sectors over the last couple of decades. The main reason for the near extinction of carpet weaving was the fact that the sector began to face severe competition from urban industry. Industrial carpet production gained momentum in the 1970s and directly affected the hand-made weaving sector (Ayata, 1982, p. 189,191). Poor quality hand-made carpets have now gone out of the market, given factory production with cost advantages and higher quality. This in turn pushed hand-made carpets into high-income domestic and export markets where there is lower demand. Ayata reported a shift in demand from conventional woollen carpets, 'Manchester' type, that weavers in Sakal were producing to small silk carpets in 1977 (Ayata, 1982, pp. 151-180). Given that silk carpets were on average five-times more expensive than the woollen ones, home weaving became a niche market with limited demand.

At the end of the 1970s, a carpet weaver was reported to earn half of an unskilled worker in the construction sector (Ayata, 1982, p. 152). In 2003, a household with two female members working on a carpet could earn around 140 YTL (US\$ 93) for at least three months of hard work. This was equivalent of seven days work of an unskilled construction labourer. Thus, it was not surprising to find an almost terminal decline of the weaving activity in Sakal.

Similarly, improvements in the transportation infrastructure and the consequent ease of travel, have affected another type of non-farm activity. Small shops which had emerged in the past have gone out of business due to the regional spread of mobile retailers. Goods of all kind have begun to come to the doorstep of the villagers

almost on a daily basis. Their prices reasonably match the prices in nearby Kayseri. Some of them also provide their customers with small accounts of credit to be paid back later. Faced with this competition, local shops, which were generating alternative incomes for a few households (up to five) have disappeared. Hence, improving infrastructure has eradicated the natural protection of local non-agricultural enterprises by enabling competitive producers from outside to enter the rural market (Reardon, 2004, p. 17).

In sum, various challenges have been affecting the process of labour transition from agricultural to non-agricultural activities in Sakal over the past half century. The lack of agricultural transformation (poor yields and low value cropping patterns) mainly due to unfavourable agro-ecology has 'pushed' households to develop non-agricultural activities as a form of survival strategy. The process has been mainly driven by households' ex-ante risk management in the face of certain risks of income inadequacy (Barrett, et al., 2001, p. 322). The Sakal experience has shown that, as Reardon argued, in areas where agro-ecology was unfavourable, there was a high incidence of temporary migration. The attraction of non-agricultural income earned outside poor agro-ecological zones (in this case through construction work) was higher than the income earned through local non-agricultural activities (in this case through carpet weaving and milk production) (Reardon, 2004, p. 12). Sakal has also illustrated that, similar to Islam's observation of villages in Bangladesh, India, Pakistan, Thailand and Sri Lanka, there was an inverse relationship between farm sizes and the proportion of non-agricultural income in households' total income (Islam, 1986, p. 159). As farm size decreased, the participation rates in non-agricultural activities increased.

4.4 The role of non-agricultural activities

In Sakal labour transition to non-agricultural activities has played major economic and social roles. First and foremost, the non-agricultural sector has absorbed some extra labour from the unproductive agricultural sector. However, the level of productivity in the non-agricultural sector itself was a matter of concern, as it determined the extent of its overall impact on the rural economy. The employment generation and labour absorption functions of non-agricultural sectors have been very important in the context of unfavourable agro-ecology where Sakal is located. Emergence of non-agricultural activities has also affected rural-to-urban migration patterns. Moreover, the impact of non-agricultural activities on rural income distribution has been significant. As for social relations within the village, the role of women both in the village and within the household has changed.

In 2003, the construction sector employed 129 labourers which constituted 40 per cent of the total labour force. Activities adopted by the women, i.e. carpet weaving and milk production, provided non-agricultural employment to another 25 percent of the total labour force. Hence, both men's and women's non-agricultural activities have generated employment for a labour force which would have been severely un/underemployed in the agricultural sector. They have absorbed substantial amount of surplus labour out of the agricultural sector.

Nevertheless, the level of productivity in these activities needs to be considered in weighing their 'real' significance and potential. The distinction that needs to be made here is between the activities of high productivity and that of 'residual' character, i.e. those developed by the poor as a last resort (Islam, 1986, p. 153). In Sakal, similar to

Islam's investigations in other developing countries, low productivity wage employment constituted the greater proportion of non-agricultural employment (Islam, 1986, p. 159).¹⁰ Similarly, Harriss's distinction between 'involutionary' non-agricultural activities, and 'positive diversification' is relevant too. In the former, increasingly impoverished households diversifies their incomes towards broader range of low-productivity activities. Whereas in the latter, households participated in high productivity activities with higher levels of consumption (Harriss, 1991, p. 432). In Sakal, the fact that average total time that a household had a member working in the construction sector 135 days meant that there was a serious underemployment problem in the construction sector. Therefore, although, they have increased labour productivity from the agricultural baseline, productivity levels in non-agricultural activities were relatively low.

Similarly, women's non-farming activities were also of low productivity. Carpet weaving households produced 1 – 3 carpets a year, contributing US\$ 93 to US\$ 280 to the village economy. On the other hand, milk production was not exceptionally profitable, nor was it undertaken in a productive way. The average amount of milk that a household produced for the urban market was relatively low, 12 litres per day. This generated an output value of US\$ 3.6 per day, and less than US\$ 1,000 per year on average.¹¹ On the other hand, the cost of production was high, given that the

¹⁰ Agricultural wages usually determine the base rate, below which could be regarded as 'residual' ('or of very low productivity') in rural areas. In Islam's study, wage rates in non-farm activities, like carpet weaving, pottery, oil extracting in Pakistan was lower than those of in agriculture. However, wages in non-rural activities requiring skill and training were generally higher (Islam, 1986, p. 163). In Sakal, wages in carpet weaving was lower than agricultural wages, but wages in the construction sector were higher.

¹¹ The average yearly output is less than US\$ 1000, since the cows cannot be milked throughout the year.

village had small amount of poor grazing land for cows.¹² Especially those households lacking adequate lands to cultivate fodder crops, had to purchase their animal food exclusively from the market, reducing their profitability. According to my estimates, average cost of a litre of milk was between 60 to 70 per cent of the price the villagers sold it for. The average daily margin of milk production for an average household was between 1.08 YTL (US\$ 0.7) to 1.44 YTL (US\$ 1).¹³ Hence, like men's off-farm activities, the level of both productivity and margins was relatively low in women's alternative income activities too.

Non-farm activities have played a role, to some extent, to prevent excessive rural-to-urban migration. Although both men and women labourers worked in direct linkage with the urban sector, they have continued to live in the village. This was partly because non-agricultural income and farming supplemented each other in a risk eliminating way, especially in the early stages of non-farm activities (Stirling, 1965, p.69). In seasons of bad harvests more men sought outside employment, while in seasons of recession in the construction sector, migrant labour returned to the village and carried on farming in the traditional way. This provided households with some flexibility and a certain level of income and food security (Stirling, 1965, p.69). The cost of keeping their families in the village was relatively low too. Accommodation, food and heating were cheaper in the village than in towns. This prevented the migration of even those households who rely exclusively on non-agricultural activities since they did not have any land to cultivate. In addition, as the physical and communicational disadvantages of rural life lessened, engaging in non-

¹² The total size of grazing land was 150 hectares.

¹³ Based on the milk price of 0.3 YTL (US\$ 0.2) per litre.

agricultural activities (both in rural and urban areas) without migrating has become a feasible alternative.

The transition to non-farm activities has also had some significant effect on income distribution in Sakal. Without non-farm activities, it would have been no more than agricultural income which is directly associated with land distribution. Hence, as Saith (1991, p. 470) argued elsewhere, the inverse relationship between farm size and participation in non-agricultural activities has decreased the level of inequality. In that respect, non-farm activities developed by men had an equalizing effect, as it has been undertaken more frequently by households whose access to land was relatively small. Since non-agricultural activities in the construction sector did not require any capital investment, there were no entry barriers to prevent the poor from participating. Necessary skills were relatively easy to pick-up, and required no formal training. Therefore, they have reduced the level of inequalities arising from unequal land distribution.¹⁴

The impact of women's non-farm activities on equality has changed from being positive to negative as the dominant type of non-farm activity changed from carpet weaving to milk production. Since there were no entry barriers in carpet weaving, even the poorest of the poor had the opportunity to engage in it. Given that relatively poorer households participated in the activity more extensively, it had a positive

¹⁴ Earning regular income in the construction sector was not always accessible to all participants. Labourers' ability to build effective social networks was the key for success in the sector. As the construction work was based on contracting and subcontracting, establishing and maintaining contacts within the sector was vital for getting regular jobs. Yet, there was no guarantee of finding continuous work. Being a friend or relative to a contractor or subcontractor was an advantage (Stirling, 1965, p.65). There was some reciprocity and favouring among workers in the village. However, the vast majority of labourers state that rather than a network of strong relations, a wider network of loose relationships is much more effective for finding regular work.

effect on relative inequality in the village. However, dairy production seems to have worked in the opposite direction. Since it required certain amount of start-up and running capital, it was undertaken more by households having better access to land. Those households selling up to 10 litres of milk per day, had access to 3.8 hectares of land on average, whereas, for those selling between 11 and 20 litres, the average size of holdings was 5.9 hectares. The households selling more than 20 litres owned 7.8 hectares on average. Moreover, there was also a significant difference between the productivity of the cows in different category of land ownership. The difference seems to be due to the fact that relatively better-off households have higher quality breeds than poor households; and they also tended to be able to feed their animals better from home-grown feeder crop.¹⁵ Hence, this fairly linear relationship between milk production/productivity and farm size appears to have been widening, or at least reflecting, the existing inequalities based on land distribution.

On the other hand, non-farm activities have had a direct effect on the economic division of labour in the village and within households. The commercialization of carpet weaving has transformed the economic and social role of women. For the first time in the 1960s, women had become income earners for their households. This also enabled them to gain more influence over male household-heads as much as they became a cash asset (Stirling, 1974, p. 207). Men's increasing participation in the construction sector in urban areas has changed the role of women within the household too. At the time of the survey in 2003, there were 24 female-headed households, as male heads were away from the village. This constituted twenty per

¹⁵For households producing more than 20 litres (at the same time they owned more land), average productivity was 8.4litre/day/cow, almost double that of those producing up to 10 litres (owning small land), 4.6 litre/day/cow.

cent of total households, excluding those which had no male labourer (less than 60 years of age). It was more common for households having labourers working abroad. Half of the households in that category were female-headed. As such, non-farm activities have radically changed the role of women, increasing their responsibility in running household duties and managing its economy.

4.5 Small-farm differentiation with land fragmentation

Sakal is about two hundred years old (Stirling, 1965, p.23). As an outcome of typical Ottoman land system based on the predominance of independent peasantry, land distribution had been relatively equal. In 1950, only five per cent of households had no access to land, while half of the total owned less than 6 hectares. No household owned more than 50 hectares to bring it into the category of large holding. However, the patterns of land distribution have changed over the last couple of decades. By 2003, there were 59 households, about 40 per cent, having no access to land through ownership. While 34 per cent owned between 0.1 to 6 hectares, 9 per cent owned between 6 to 10 hectares. On the relatively high-scale category, six per cent (eight households) owned between 16 to 30 hectares. There was no household owning more than 30 hectares.¹⁶

¹⁶ For the accuracy of the time-scale comparison, the categories used here are based on Stirling's.

Table 4-1 Land distribution in Sakal, 1950 vs. 2003

Land distribution in Sakal		
Land ownership (ha)	Households (%)	
	1950	2003
0	5	40
1-6	49	34
6.1-10	30	9
10.1-16	10	9
16+	5	6

Source: Stirling (1965) and author's field research.

As is clear from Table 4.1, more significant changes took place in the lower categories of land ownership. Households having no land increased from 5 – 40 per cent. This was a result of the decline in the middle and lower middle categories combined. The percentage of households owning 1 to 10 hectares dropped from 79 in 1950 to 43 in 2003. However, this has not been accompanied by a parallel increase in the percentages of higher categories. Both in 1950 and 2003, 15 per cent of households owned more than 10 hectares. Hence, the proportion of farms in the middle ownership categories has declined, along with an increase in the number of small holdings. However, there has not been an increase in the proportion of higher ownership categories. This clearly indicates a significant extent of land fragmentation in Sakal.¹⁷

These results suggest that there is a relationship between land fragmentation and the transition to non-agricultural activities, which seems to be two directional. On the one hand, land fragmentation has pushed households to engage in non-agricultural

¹⁷ There has been a relatively small rise in the total size of large farms, suggesting some land concentration, however, at the same time, the total area farmed seems to have fallen too. Given the substantial growth in the share of small farms, the pace of fragmentation seems to have been faster than that of concentration.

activities. Among 59 landless households, 52 had at least one male member participating in non-agricultural activities. At the same time, land fragmentation might have taken place as a result of the labour transition to non-agricultural activities. The average family size of a landless household was 30 per cent smaller than an average household owning more than 10 hectares.¹⁸ Similarly, the average age of household-heads in landless families participating in non-agricultural activities was 15 years younger than in households owning more than 10 hectares (the ages of 40 and 55, respectively). This may suggest that the labour transition to non-agricultural activities might have pushed/enabled younger generations out of extended families, which in turn increased the incidence of land fragmentation through inheritance practices.

There was almost no market for land in either 1950 or 2003. Since yields and output values were too small to generate attractive incomes relative to non-agricultural incomes, the demand for land was almost non-existent. Furthermore, land holdings were fragmented, which would have complicated any attempt at land consolidation. Both in 1950 and 2003, the exact ownership of a particular plot was obscure, since villagers did not follow complex bureaucratic procedures to alter ownership deeds, as their lands changed hands through inheritance (Stirling, 1965, p.51). In 2003, only 200 hectares of land were registered for direct subsidy under the scheme introduced through a World Bank Project, which constituted less than 40 per cent of the total land (based on my survey). Since the process of making land applicable for the subsidy requires laborious procedures of updating deeds, the bulk of the land was not registered although the subsidies would have provided income. Therefore, as the land

¹⁸ For landless households household size was 4.7; for households owning more than 10 hectares, it was 6.

did not constitute a pivotal role in the livelihoods of the majority of households, and holdings were fragmented and their ownership was obscure, a land market was not functioning.

It is, therefore, not surprising that there has not been any significant trend towards increasing land concentration. Since the transformation within agriculture has been stagnant, the demand for land was minimal. Instead, Sakal has been experiencing a trend of land fragmentation and declining average farm size (as a result of an increase in the number of households). While the transformation from agriculture was taking place, land ownership has lost its economic significance, especially in the lower segments of ownership categories. Households with low opportunity cost of leaving agriculture left it without this leading to land concentration. Therefore, in the absence of agricultural transformation, small farm differentiation has occurred without land concentration. The role of land relations in the process of rural transformation has not been decisive in Sakal.

4.6 Conclusion

Over the last half century, cereal yields in Sakal have increased from an extremely low baseline (1 ton per hectare) to a level which is still lower than yields in the Fertile Crescent 10,000 years ago (1.5 ton per hectare). The case has illustrated the importance of ecological factors in the process of rural transformation. High altitudes, a steppe climate, unfavourable temperatures, cold stress, poor soil quality and a short period of growing represent an unfavourable ecology which is not conducive for achieving high yields and high-value cropping patterns. More than half of Turkey's cultivable land is in areas where some or all of the agro-ecological

constraints affecting Sakal are in operation, creating ecological dependencies which hinder the process of transformation within agriculture.

Sakal has also shown that a stagnant transformation within agriculture pushes the process of labour transition to non-agricultural activities. Since agricultural incomes (the opportunity cost of leaving agriculture) was low relatively to non-agricultural incomes (the opportunity cost of staying agriculture), the vast majority of households in Sakal have turned, partially or fully, to non-agricultural activities. Since the 1950s when non-agricultural activities first emerged in the form of temporary work in the building sector, they have become the dominant form of income activity. There is an inverse relationship between farm size and participation in non-farm activities which are taken more frequently by households who had no or relatively small amount of land.

The process of labour transition has also been strongly affected by the overall state of the macroeconomic situation in urban areas. The labour demand from the urban construction sector, consumption demand for carpet and dairy products determined the pace and the extent of the labour transition. On the other hand, improving transportation and communication infrastructure has reduced the physical and social isolation of the rural space, and thus contributed to the process. However, as the near extinction of carpet weaving has illustrated, increasing linkages between rural and urban areas has also reduced the natural protection over rural non-agricultural activities making them vulnerable to urban competition.

The case of Sakal has therefore illustrated that the categorization of non-agricultural activities based on 'location' and 'linkages' (Saith, 1991, p. 663-4) needs to be more dynamic. Non-agricultural activities in the construction sector have established a labour linkage between the rural and urban spaces. The activity was urban located, and it was linked back to the rural space through the backward linkages of wages, which has been intensified by improving communication and transportation infrastructure. Similarly, the development of milk production for urban markets as an alternative income activity would not have been possible without the improvements in transport facilities. On the other hand, local retail shops have gone out business as a result of increasing penetration of more flexible and cost effective mobile retailers. Hence, improving transportation and communication infrastructure diminishes the boundaries of location while intensifying the linkages between rural and urban economies. It reduces the transaction costs arising from the physical isolation of the rural areas while increasing the level of urban competition that rural non-farm activities faces.

Sakal has also illustrated that the labour transition from agricultural to non-agricultural (and non-farming) activities plays major roles in rural economies. First, non-agricultural activities absorb a substantial amount of surplus labour from the agricultural sector. Second, given that living expenditures are lower in rural areas as compared to urban areas the transition to non-agricultural activities has an effect of reducing excessive rural-to-urban migration. Third, when non-farm activities were adopted more extensively by lower-income households, they reduce the level of inequalities in rural areas. Fourth, they affect the division of labour within households and may empower the role of women within rural societies.

As for small-farm differentiation, Sakal has shown that if the process of transformation within agriculture is stagnant, the demand for land is low and thus there is no significant trend towards increasing land concentration. Instead, as Sakal has illustrated, a trend of land fragmentation and declining average farm size is a more likely outcome. Through the labour transition from agricultural to non-agricultural activities, land ownership has lost its economic significance, especially in the lower segments of ownership categories. Therefore, in the absence of agricultural transformation, small-farm differentiation has taken place in the form of increasing number of rural households de-linked from agriculture without this leading to land concentration.

The next chapter focuses on another case, Sinan, located in further east from Central Anatolia. It has a more favourable agro-ecology and better infrastructural development allowing it to achieve higher levels of agricultural development as compared to Sakal, but lower relative to Tuz illustrated in the previous chapter. It has also experienced a somewhat moderate pace of labour transition to non-farm activities. However, the main distinctive characteristic of Sinan relative to the other two cases is its different social and political structure at the local level leading to a skewed land distribution pattern. It exemplifies a transformation process whereby high level of inequality in income generating assets (mainly land and water) is the most limiting factor. The next chapter assesses the social and political dimensions of the process rural transformation.

Chapter V - A Captive Village in Transformation: Sinan¹

A village in the province of Diyarbakır in South-eastern Turkey has recently appeared in many national newspapers and on TV with headlines such as ‘Peasants united against the landlord’, ‘Villagers are marching against landlordism’, ‘Rebellion against the landlord continues’.² For many, this was rather amusing news – reminding them of a popular comedy film based on a fictional representation of peasants rebelling against their landlord in the 1970s.³ In reality, however, the actions were a serious appeal by peasants voicing their plight about extreme inequality in rural south-eastern Anatolia.

This region of Anatolia is an extreme case of rural inequality, which has historically evolved through state politics. The seeds of current inequalities in land distribution were sown in Ottoman times. From the 16th century onwards, in return for their alliance, the central authority offered the Kurdish tribal chiefs the control of large stretches of land.⁴ State politics continued to legitimize or otherwise reinforce this structure after the establishment of the Republic. Despite attempts at land reform in the first half of the 20th century, for the most part the structure of land distribution

¹ This chapter draws heavily on author’s paper on Sinan published in *New Perspectives on Turkey* (Karapinar, 2005).

² Headlines in *Cumhuriyet* (02.10.2004), *Köylü* (September-October 2004), and *Radikal* (17.09.2004), respectively.

³ A popular national newspaper, *Sabah* (24.08.2004), used the headline, ‘Kibar Feyzo Gets Real in Bismil’ (‘Kibar Feyzo Filmi Bismil’de Gerçek Oldu’. In the Atıf Yılmaz’s 1978 movie, *Kibar Feyzo*, a young peasant is influenced by leftist urban slogans of the time in Istanbul, and initiates a struggle against the landlord in his village in south-eastern Anatolia.

⁴ For the discussion of the history of the region’s land ownership patterns, among others, see Barkan, (1980), Jwaideh (1960, 1999), Aydın (1986), McDowall (2000), Barkey and Fuller (1998).

remained nearly intact throughout the early modern history of Turkey.⁵ By 1980, agricultural production relations had undergone a series of transitions, however, because of landlords undertaking land enclosures and expansions, inequality in land distribution intensified on an unprecedented scale.

This chapter explores the political economy of rural inequality from an historical and social point of view by investigating trends in the distribution of agricultural resources – mainly land and water. The process of urbanization (transformation from agriculture), the extent of transformation within agriculture resulting from a huge infrastructural project – the GAP (South-east Anatolia Project), and peasant struggle for land constitute the issues with which the chapter highlights the impact of inequality.

The village of Sinan, analyzed in this chapter, exemplifies the impact of severe inequality in the distribution of land and water resources on the process of rural transformation. The case history illustrates an example of extreme inequality that has been ascribed through state politics. The main argument proposed in this chapter is that ‘ascribed’ inequality in resource distribution is a push factor for rural-to-urban migration while also constituting a major obstacle to the transformation within agriculture.⁶ Other factors, such as enjoying relatively favourable ecology and having integrated into domestic and international markets, have affected the village through

⁵ For the discussion of the political economic developments in rural south-eastern Anatolia after the establishment of the Republic, see, Avcioglu (1969), Tezel (1982); for various perspectives in relation to the land reform attempts, see Tokin (1990), Tarakli (1976), Keyder and Pamuk (1984-1985), Karaomerlioglu (2000).

⁶ I use the distinction that Eastwood and Lipton (2000) made between ‘ascribed’ inequality and ‘achieved’ inequality. The former is based on inheritance, status and ethnic discrimination, etc.; the latter is based on merit, competitiveness and market performance, etc. (Eastwood and Lipton, 2000, p.46). This chapter focuses on the impact of ‘ascribed’ inequality on rural transformation.

the filter of this politically embedded inequality. Likewise, the GAP has benefited the village through the same filter. Therefore, Sinan provides a substantial case to weigh the impact of rural inequality on the process of rural transformation at the local level.

This chapter is divided into four sections. The first investigates regional trends in inequality in landownership over the last half century. Here, it also explores the effects of inequality on urbanization and on economic development from the GAP since 1980. In the second part, it presents a longitudinal village study exemplifying an extreme case of ‘ascribed’ inequality in land distribution. This section discusses the political and economic transitions that the village of Sinan has been through. It also explores a recent grassroots movement that has been initiated by the peasants. Third, in the light of my fieldwork and the recent empirical evidence, the chapter assesses the validity of some arguments that have been put forward in the past about the process of scale differentiation, before it finally concludes.

5.1 Persistent inequality

After the end of World War II, with the help of the Marshall Plan, Turkish agriculture has experienced massive progress which reflected in the region too. The number of tractors quadrupled in 12 years, from about 9,900 in 1950 to 43,700 in 1962.⁷ This led to the opening up of virgin land and, at the same time, the displacement of redundant agricultural labour. The total area devoted to agriculture increased from 14.5 million hectares in 1950 to 23 million hectares in 1962 (SIS,

⁷ For the data concerning 1950 see (SIS, 1956), for 1962 see (SIS, 1963).

1963).⁸ In south-eastern Anatolia, too, the number of tractors increased remarkably, from 318 in 1950 to 1038 in 1962.⁹ However, it was the large landowners who purchased tractors first. They began to expand their control over land through bringing new land under cultivation as well as enclosing some land that had been previously cultivated by peasants under traditional sharecropping arrangements.

Between 1950 and 1980, the total amount of arable land in south-eastern Anatolia increased from 1.6 million hectares to 3.5 million hectares, an expansion of more than 1.8 million hectares (see Table 5.1). However, most of this extra land was brought under cultivation by large landowners. Almost 40 per cent of the total expansion (1.8 million hectares) occurred in the category of households owning more than 50 hectares. On the other hand, only seven per cent of it occurred in the small holders category (i.e. household owning less than five hectares). During the same period, the number of households living in rural areas increased by more than 210,000. As is shown in Table 5.1 below, the bulk (63 per cent) of this growth occurred in the small holders category. Therefore, by 1980, large landowners had expanded their control over land, while small holders, despite their growing numbers, were squeezed into small portions of the region's arable land. This in turn exacerbated the level of rural inequality in the period.¹⁰

⁸The total cereals production doubled in the period, from 7.7 million metric tons to 14.6 million metric tons (SIS, 1963).

⁹ For the data concerning 1950 see (SIS, 1956, pp. 2-3), for 1962 see (SIS, 1963, p. 16).

¹⁰ Keyder and Pamuk (1983-1984, p. 61) argued that the opening of new land had an equalizing effect on land distribution in Turkey. Although this argument accounts for the introduction of tractors, it does not take into account the issue of their unequal distribution. It was mainly the large landowners who were able to purchase tractors, and they were the ones who expanded their control over land, thereby exacerbating inequality in land distribution.

Table 5-1 Land holdings in south-eastern Anatolia,* 1950-1980

A: Households		B: Land								
Ownership Categories (Hectare) **	1950		1980		Net increase (1950-1980)		Net increase (1950-1980)		(%)***	
	A	B	A	B	A	B	A	B		
0-4.9	69 600	177 420	201 900	301 347	132 300	123 927	63	7		
5-9.9	42 600	333 480	63 650	408 519	21 050	75 039	10	4		
10-19.9	27 000	377 220	53 405	676 778	26 405	299 558	12	16		
20-49.9	6 600	208 140	28 880	810 977	22 280	602 837	11	33		
50+	3 600	535 320	12 855	1 260 604	9 255	725 284	4	40		
Total	149 400	1 631 580	360 690	3 458 225	211 290	1 826 645	100	100		

Sources: State Institute of Statistics, General Agricultural Censuses 1950 (SIS, 1956), 1980 (SIS, 1984b).

* Land census data presented here is based on the region (region VI) including the provinces of Bingöl, Bitlis, Diyarbakır, Hakkari, Mardin, Muş, Siirt, Şanlıurfa, Van

** The ownership categories used in the 1950 census were slightly different: 0-5, 5.1-10, 10.1-20, 20.1-50 hectare.

*** Distribution of the net increase between the categories of ownership.

Between 1980 and 1991, the extent of inequality in land distribution continued to get worse. As is shown in Table 5.2 and 5.3, households owning more than 50 hectares increased the size of the total area that they controlled from 1.3 million hectares in 1980 to an historic high of 2.4 million in 1991. Their share in the region's total area increased from 36 per cent to 49 per cent. On the other hand, the share of households owning less than five hectares further decreased from nine per cent to six per cent. By 1991, approximately 70 per cent of the total arable land rested with the wealthiest 15 per cent of the rural population, while almost half of the population owned six per cent of the land.¹¹

¹¹ For a thorough analysis of land distribution patterns in all regions between 1950 and 1991, see (Koymen and Ozturkcan, 1999).

Table 5-2 Land holdings in south-eastern Anatolia,* 1950-2001 (percentages)

Ownership categories** (Hectare)	A: Percentage of Total Households		B: Percentage of Total Land							
	1950		1970		1980		1991		2001	
	A	B	A	B	A	B	A	B	A	B
0-4.9	47	11	60	10	56	9	49	6	58	11
5-9.9	29	20	16	12	18	12	19	9	18	13
10-19.9	18	23	14	20	15	20	16	15	13	19
20-49.9	4	13	8	24	8	23	10	21	9	28
50+	2	33	2	34	4	36	5	49	2	29
Total	100	100	100	100	100	100	100	100	100	100

Table 5-3 Land holdings in south-eastern Anatolia*, 1980-2001

Ownership Categories (Hectare)	A: Households		B: Land			
	1980		1991		2001	
	A	B	A	B	A	B
0-4.9	201 900	301 347	179 265	299 044	177 666	289 892
5-9.9	63 650	408 519	67 506	439 517	53 820	360 567
10-19.9	53 405	676 778	59 585	744 034	39 964	517 513
20-49.9	28 880	810 977	37 907	1 011 946	27 723	767 950
50+	12 855	1 260 604	18 395	2 404 339	7 256	804 892
Total	360 690	3 458 225	362 658	4 898 881	306 429	2 740 814

Sources: State Institute of Statistics, General Agricultural Censuses 1950 (SIS, 1956), 1970 (SIS, 1979), 1980 (SIS, 1984b), 1991 (SIS, 1994), and 2001 (SIS, 2003b).

* Land census data presented here is based on the region (region VI) including the provinces of Bingöl, Bitlis, Diyarbakır, Hakkari, Mardin, Muş, Siirt, Şanlıurfa, Van, Batman, and Şırnak (Batman and Şırnak were not administrative provinces before 1990)

** The ownership categories used in the 1950 census were slightly different: 0-5, 5.1-10, 10.1-20, 20.1-50 hectare.

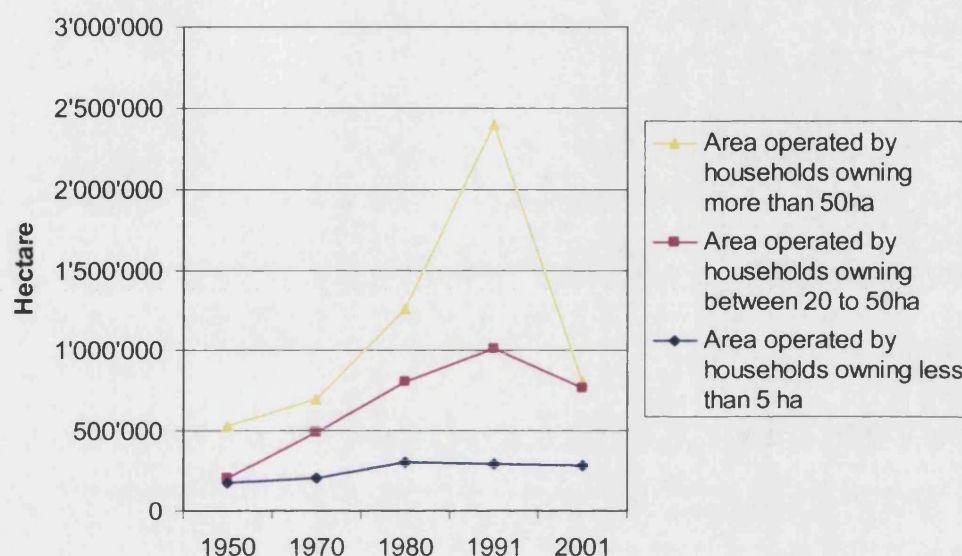
According to the results of the most recent (2001) agricultural census, this trend of land concentration appears to have changed. The total area cultivated by households owning more than 50 hectares dropped from 2.4 million in 1991 to 0.8 million hectares. The proportion of land controlled by this category also declined from 49 to 29 per cent (see Table 5.3). At first glance, this might occur like the sign of a trend in the direction of a more equal land distribution, but it was not. The main reason for

the seemingly decreasing size of land owned by large landowners was the 'evaporation' of large amounts of land in the data collection. When the results of the 2001 census are checked against the previous agricultural census of 1991, it is immediately apparent that more than 2 million hectares have disappeared. Precisely 44 per cent of the land counted in the census of 1991 does not appear in the 2001 census data. Unsurprisingly, 67 per cent of the missing data were in the categories of large landownership (i.e. over 50 hectares).¹²

The decrease in the total size of land in the highest category would have been a sign of the dissolution of large ownership if there had been corresponding expansions in the ownership categories immediately below. However, as is shown in Figure 5.1 below, the size of the middle category – households owning 20 to 50 hectares – did not expand. In fact, the total area in the middle category also shrank from around 1 million to 0.75 million hectares. Moreover, even if one takes the 2001 census at face value, the level of inequality would not have been much different from that in 1970 (see Table 5.2).

¹² The main reason for such a mismatch in the data is the method used in agricultural censuses in Turkey, which are based on the declaration of landowners. As such, they have always tended to underestimate the actual level of inequality in land ownership. As Boratav (1999, p. 86) illustrated in the case of the 1970 agricultural census, the significant extent of 'missing land' was because of the fact that land reform debates were on the public agenda, which made landowners hesitant to declare the actual size of their holdings. In 2001, however, rather than land reform speculations – which have disappeared since 1980 – a possible expectation of taxation in the course of a major economic crisis might have been a factor.

Figure 5-1 Total area operated by households in selected categories of land ownership, 1950-2001

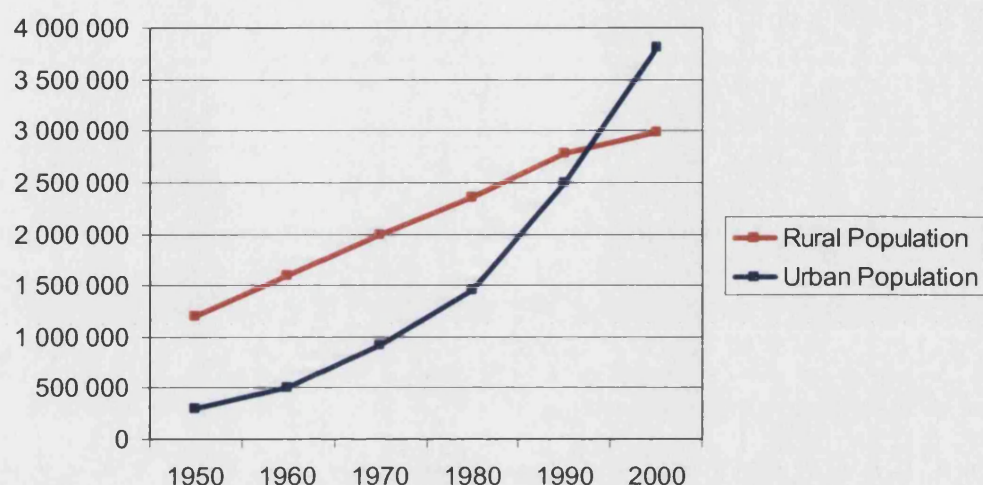


Sources: State Institute of Statistics, General Agricultural Censuses 1950, 1970, 1980, 1991 and 2001 (SIS, 1956; SIS, 1979; SIS, 1984b; SIS, 1994; SIS, 2003b).

5.1.1 Pushing migration

There has been rapid urbanization along with population growth in the region since 1980. It escalated in the 1990s, during which time the number of people living in urban areas came to surpass the number in rural areas. The percentage of people living in rural areas decreased from more than 60 per cent in 1980 to 44 per cent in 2000. As is shown in Figure 5.2, in the mid-1990s, the share of urban population surpassed 50 per cent for the first time. The total number of people living in urban areas increased from approximately 1.5 million in 1980 to about 3.8 million in 2000, which represents an annual growth of 4.9 per cent. The number of people living in rural areas grew at a slower pace, 1.2 per cent annually (SIS, 1984a; SIS, 2003c). This indicates one of the highest regional out-migration rates from rural to urban areas in Turkey.

Figure 5-2 Rural and urban population of south-eastern Anatolia, 1950-2000



Sources: State institute of Statistics, Censuses of Population (SIS, 1961a; 1960; 1977; 1984a; 1991; 2003c).

* Including the provinces of Adıyaman, Diyarbakır, Gaziantep, Kilis, Mardin, Siirt, Şanlıurfa, Batman, Şırnak (Batman and Şırnak were not administrative provinces before 1990).

Extreme inequality and consequent poverty in rural areas has had a significant impact on urbanization. If the population figures above are taken into consideration along with the data provided by agricultural censuses illustrated in Table 5.2 and 5.3 above, the relationship between rural inequality and urbanization becomes clear. The number of households in the ownership category of less than five hectares decreased by 12 per cent between 1980 and 2001. Similarly, the level of landlessness also declined from around 30 per cent in the 1970s to six per cent in 2001 (Koymen and Ozturkcan, 1999; SIS, 2003b). This was not because landless peasants became landowners, but because they left the rural space, indicating that rural inequality has been pushing land-poor peasants into urban areas, constituting one of the main causes of the region's rapid urbanization.

5.1.2 Bridging the GAP

The Southeast Anatolia Project, the GAP, is a vast regional development project aimed at resolving the region's socio-economic 'backwardness' by means of agricultural development. It entails creating an extensive irrigation scheme – with 22 dams and 19 hydroelectric power plants – constructed on the Tigris and the Euphrates. The main objective of the project is integrating the region into the national economy by means of advancing its agricultural economy. This was to be achieved through irrigated farming, improving land and water resources management, changing the cropping pattern towards more value-added products and the development of modern farming practices (Kudat and Bayram, 2000, p. 255). However, empirical evidence suggests that the objective of bridging the economic disparity between the region and the rest of the country has failed so far. Moreover, the way the project has been implemented appears to have created significant inequalities at the regional, provincial and household levels.

The project covered nine provinces and around 75,000 square kilometres, 10 per cent of the country. It was initiated at the end of the 1970s, revised at the end of the 1980s, and is still in the implementation phase in 2005. The estimated total cost of the project is US \$ 32 billion, including the hydroelectric power plants and the irrigation scheme (GAP, 2005).¹³ The total cost of agricultural investment is planned to be around US\$ 10 billion (GAP, 2005). It is based on the irrigation of 1.7 million hectares of land, more than half of the region's total cultivable area. Since the beginning of the project, the cumulative investment made for agricultural

¹³ According to the GAP Master Plan, three scenarios were envisaged setting different targets for the year 2005 (Mutlu, 1996, pp.70-71).

development had reached US\$ 1.6 billion by 2001. A total area of 215,000 hectares, 13 per cent of that proposed, has been irrigated (GAP, 2005).

The impact of the GAP on agricultural development can be assessed systematically by analysing growth in the gross agricultural output value (GAOV) produced in the region between 1991 and 2001. Approximately 11.5 per cent of the agricultural value produced in Turkey was produced in the GAP region in 2001 (see Table 5.4). This represents a slight increase from its level of 9.4 per cent in 1991.¹⁴ In absolute terms, however, the gross agricultural output value produced in the GAP did not increase during the period. It was US \$ 1.9 billion in both 1991 and 2001 at current prices. At first glance, it seems that the GAP failed to achieve any agricultural growth between 1991 and 2001.

However, the GAP's performance cannot be interpreted without taking into account general trends in Turkish agriculture over the same period. The gross agricultural output value produced in Turkey fell by almost 20 per cent, from around US \$ 20 billion in 1991 to US \$ 16 billion in 2001 (see Table 5.4). Therefore, although land output productivity decreased in Turkey, it remained stable in the region. As a result, the region's land output productivity has exceeded Turkey's average in the period. Therefore, it seems that the GAP has slowed down the countrywide trend of the sectoral shrinking in the region.

¹⁴ There was a more visible increase in the share the GAP in field crops, from 11.2 per cent in 1991 to 16.2 per cent in 2001 (see Table 5.4).

Table 5-4 Gross agricultural output value (GAOV) in the GAP region and Turkey, 1991 vs. 2001

GAOV (US \$) *	1991			2001		
	Turkey	GAP	Share of GAP (%)	Turkey	GAP	Share of GAP (%)
Field crops	10,005,588,930	1,124,731,585	11.2	7,280,294,275	1,197,438,167	16.4
Vegetables	4,877,883,377	287,288,512	5.9	4,373,316,487	376,932,935	8.6
Fruits	5,196,694,366	479,979,616	9.2	4,714,950,395	313,263,773	6.6
Total	20,080,166,673	1,892,000,192	9.4	16,368,561,156	1,887,634,876	11.5

Source: Author's calculation based on (SIS, 1995) and (SIS, 2003a).

* At current prices based on monthly average exchange rate of TL against US\$. Exchange rates as follows: for 1991, US \$ 1 = 4,169.9 TL; for 2001, US \$ 1 = 1,222, 921 TL (SPO, 2003, pp. 78-79).

At the regional level there are huge disparities between provinces in terms of their trends in gross agricultural output value. Five out of eight provinces experienced negative growth in their gross value between 1991 and 2001. Especially three of them, Adiyaman, Siirt and Batman, saw declines of more than 30 per cent, well above Turkey's average. Only Şırnak and Şanlıurfa achieved significantly high growth rates, at 42 and 52 per cent, respectively.¹⁵ This was mainly due the fact that the bulk of the completed part of the agricultural project was located in a single province. More than half of the completed irrigation (115,000 hectares of the 215,000) is in the Harran plain within the province of Şanlıurfa (GAP, 2005). Therefore, as is shown in Figure 5.3, negative growth rates in five provinces, and high positive growth rates in the aforementioned two, illustrate a trend towards intra-regional polarization in terms of agricultural development.¹⁶

¹⁵ However, Şırnak's share in regions aggregate output value was relatively small (2.1 per cent in 1991 and 3 per cent in 2001). Its per capita output was the lowest in the region in both 1991 and 2001.

¹⁶ As a result, the share of provinces in the region's total output changed significantly as is shown in Table 5.5. Over the period, the shares of five out of eight provinces declined.

Figure 5-3 Growth in agricultural output value* in GAP provinces, 1991-2001

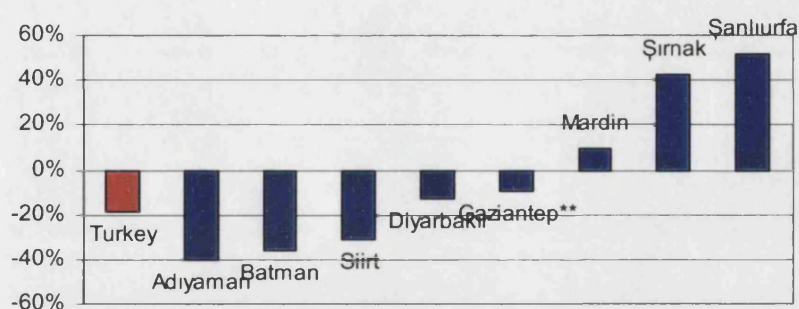


Table 5-5 Gross agricultural output value* (GAOV), the GAP provinces, 1991-2001

Provinces	1991		2001		Growth in GAOV 1991-2001 (%)
	Value (US\$)*	Share of provinces in GAP %	Value (US\$)*	Share of provinces in GAP %	
Adiyaman	239,469,285	12.7	143,970,190	7.6	-39.9
Diyarbakir	459,953,236	24.3	402,471,743	21.3	-12.5
Gaziantep**	339,981,054	18.0	307,912,354	16.3	-9.4
Mardin	217,818,387	11.5	237,850,660	12.6	9.2
Siirt	58,122,714	3.1	39,858,629	2.1	-31.4
Sanliurfa	404,319,340	21.4	614,898,969	32.6	52.1
Batman	132,916,532	7.0	84,567,855	4.5	-36.4
Sirmak	39,419,643	2.1	56,104,475	3.0	42.3
GAP (total)	1,892,000,192	100.0	1,887,634,876	100.0	-0.2
Turkey	20,080,166,673		16,368,561,156		-18.5

Source: State Institute of Statistics (SIS, 1995) and (SIS, 2003a).

* At current prices based on monthly average exchange rate of TL against US\$. Exchange rates as follows: for 1991, US\$ 1 = 4,169.9 TL; for 2001, US \$ 1 = 1,222, 921 TL (PMSPO, 2003, p. 78-79).

** The province of Kilis has recently been established through the division of Gaziantep. For accuracy of the comparison, the value produced in Kilis in 2001 was added to the value for Gaziantep.

Therefore, looking at the provincial level, it is no wonder, that the success story being highlighted by successive governments is that in the Harran Plain of Şanlıurfa. The annual gross agricultural product produced in the province is 50 per cent larger than the amount in 1991 (see Table 5.5). However, when we investigate the land distribution patterns in the province, the beneficiaries of the irrigation become apparent. The province of Şanlıurfa has one of the most unequal land ownership

patterns not only in the entire GAP region, but in the whole of Turkey. Households owning less than five hectares constitute 25 per cent of the total, and they control less than 4 per cent of the province's total cultivable land. In contrast, the top six per cent of the holdings owned 43 per cent of the total land in 2001 (SIS, 2003b). Obviously, it is the large landowners who are the major beneficiaries of the GAP's irrigation, while the small farmers are only benefiting according to their access to land.¹⁷ As a result, in the province where the project has been implemented, it has been exacerbating the existing inequalities at the village and household levels.

There are four main conclusions that should be drawn from the findings presented above. First, the GAP has not achieved its objective of bridging the economic gap between the region and the rest of the country. This is mainly because only a fraction (13 per cent) of its agricultural component has been completed. As a result, looking at the agricultural sector, the existing disparities seem to be widening for at least half of the provinces in the region. Second, the bulk of the completed part is located in one province, namely Şanlıurfa, where it has achieved substantial progress in agricultural growth. Third, it has exacerbated, however, existing inequalities within this province. Since there is major inequality in the distribution of land in that area, the completed part of the project has benefited the large landowners more than it has benefited poor peasant households. Fourth, the combination of the previous two outcomes has led to a trend of polarization between the provinces in terms of their agricultural growth. In sum, the overall impact of the GAP seems to have been far more limited than was expected and is often portrayed. Moreover, if the project does not address the issue of inequality (in terms of both the allocation of its investments

¹⁷ Kudat and Bayram (2000, p. 256) also mentioned the problem of increasing inequality in Şanlıurfa because of the unequal distribution of the benefits of the irrigation projects.

at the regional level and inequalities in land distribution at the province level), it is very likely that it will lead to more severe socio-economic problems than it has so far alleviated.

5.2 Sinan, a captive village in transition

Moving from the regional level of analysis to the case of Sinan offers us an opportunity to analyse the impact of inequality on rural transformation at the village and household levels. Sinan is a village in Diyarbakır, one of the biggest provinces in the GAP region.¹⁸ The village has a considerable amount of cultivable land, around 3,000 hectares.¹⁹ However, no single peasant household has ownership rights; the entire land of the village is owned by a single family living in Istanbul. As such, Sinan does not necessarily represent the land ownership patterns of the whole southeastern Anatolia or the GAP region. Nevertheless, it illustrates some major historical trends that the region has experienced. More importantly, as an extreme case, it exemplifies the extent of the impact of inequality on the process of transformation from and within agriculture. It also shows that severe inequality is a potential source of political discontent amongst peasants.

In the summer of 2003, I carried out a field research in Sinan. During the two months of fieldwork, I carried out a population census and household surveys with the existing 146 households at the time. The surveys were essentially quantitative, investigating production relations and demographic and income related

¹⁸ It is in the district of Bismil located on the main road between Diyarbakır and the province of Batman. It is located further in the east of the district, approximately 15 km to Batman.

¹⁹ According to the local land registry documents, there is also small amount of state-owned land, 90 hectares.

characteristics of households. I also collected some official information about state-owned land, agricultural subsidies and cropping patterns at the district level from the local administration (*Bismil Kaymakamlığı*). In the summer of 2004, I revisited the village for a shorter period to investigate the recent political developments taking place in the village.

Sinan has a history of about 300 years, and the current inhabitants are Kurdish peasants (Akçay, 1985, p.124). The historical roots of current land relations in the village go back to the end of the 19th century. They began to take shape with the arrival of a rich family from a neighbouring province, Muş. The family, called Sinan, arrived with a large herd of animals indicating a strong economic power at that time. The head of the family, who was said to be an educated man, consolidated his political and economic authority over the peasants in the early 1900s. He acquired the control of large amounts of land and became a landlord.

There is no official registry record as to how exactly the family secured the control of the entire land, however, it is clear that the family managed to acquire a substantial amount of land from the state. Akçay (1985, p.126) argued that along with the land that had been provided by the state, the family might have purchased some land from the former Christian inhabitants living in the village vicinity. There is some recent evidence suggesting that the family began to obtain the titles of some state-owned land at the end of the 1950s.²⁰ A document from the land registry archives in Ankara

²⁰ Apart from this document, there is no clear evidence about the land transactions before 1980. According to Akçay (1985, p.123), the landlord was leasing 500 hectares of state-owned land by paying nominal rates in 1980. Since the amount of state-owned land decreased to 90 hectares in 2003, the family appears to have obtained the ownership rights of a considerable amount of land from the state since 1980.

indicates that an official land commission visited Sinan in 1957.²¹ These were land registry commissions set up to distribute state-owned land to landless or land-poor peasantry. However, in this case, it appears that they transferred large amounts of land from the state to the family.²² Such land transaction would not have been possible without the family's political influence at the local level.²³

From the 1920s onwards, a semi-feudal type of relationship between the landlord family and the peasants was established. Peasant households cultivated the land under a sharecropping arrangement, through which the landlord acquired 1/8 or 1/10 of the product in kind in return for providing the land (and possibly draft animals) (Akçay, 1985, p.128). Since the level of technology in agriculture was very primitive, manpower was the limiting factor of production. Thus, the welfare of the landlord was bounded by his ability to expand sharecropping to the broadest peasant-base available.²⁴ The landlord allowed each household to cultivate 5-6 hectares, which was the amount a single household could cultivate with the technology at hand, i.e. a pair of oxen.

5.2.1 First phase

The landlord began to invest in technology after 1950, which led to a transition in land relations. He bought his first tractor in 1955 through cheap credits available under the Marshall Plan, and he bought two more tractors between 1955 and 1965 (Akçay, 1985, p. 146). However, the economic logic of expanding sharecropping

²¹ This document has recently been gathered by some villagers in Sinan.

²² For similar stories of land commissions granting large stretches of land to certain 'powerful' families in Diyarbakır in the 1960s, see (Yalman, 1977, p. 211).

²³ Keyder (1983, p. 43) and Yalman (1977, pp. 212-3) mentioned the role of the landlords' political influence on land transactions in those years.

²⁴ The population of the village was 449 in 1935 (SIS, 1937, p. 19).

was no longer plausible for the landlord. Every additional tractor made him less dependent upon the peasants and created more incentives for enclosing the land for his own use. For the peasants, on the other hand, it meant being driven from the land that they had cultivated for decades through sharecropping (Akçay, 1985, p.130).²⁵ Land came to replace manpower as the limiting factor, resulting in land relations in the village facing a radical transition.²⁶

The peasants encountered a dual pressure to their livelihoods. The landlord's enclosures severely reduced the availability of land, both for cultivation and grazing for their animals. By 1981, approximately 20 per cent of households had no access to land (Akçay, 1985, p. 176).²⁷ The land available to those households continuing to engage in sharecropping had decreased to between 2 and 15 hectares, with an average of 4.5 hectares (Akçay, 1985, p. 136). At the same time, however, they faced increasing population pressure on land left over from the enclosure process. The size of the village population rose from 834 in 1955 to 1,480 in 1985 (SIS, 1961b, p. 168; SIS, 1988, p.6).²⁸ Similar to overall trends in the region, this meant that the livelihoods of the peasants were squeezed by increasing population pressure on decreasing amount of land resources.

²⁵ Some peasants resisted the enclosure process because they had traditional rights to inherit the land that they sharecropped (Akçay, 1985, p. 174). However, the landlord employed reward-punishment tactics: he exercised coercive methods, like beating, firing and bulldozing houses, indeed even killing (Akçay, 1985, pp. 133-4), and he also (re)allocated the land outside his own operation to buy loyalty from within the village (Akçay, 1985, p. 133). As such, he managed to shift the traditional economic balance of feudalism to a politically risky, but economically more rewarding equilibrium.

²⁶ Yalman (1977, pp. 198-9) observed similar structural changes in the landlord-peasant relationship in Diyarbakır as a result of the introduction of tractors in the 1950s and 1960s. She mentioned the introduction of the tractors as 'disastrous' from the point of view of the peasants.

²⁷ It is based on Akçay's sample (1985, p. 176).

²⁸ This figures includes the population of two hamlets administratively linked to Sinan.

By 1980, the landlord had turned into a capitalist farmer – having 13 tractors, 2 trucks, 2 harvesters, 6 water pumps, and undertaking wheat cultivation on 1,500 hectares of land (Akçay, 1985, pp. 123-76).²⁹ However, he continued to engage in traditional sharecropping relations with relatively ‘trouble-free’ families.³⁰ He sharecropped-out around 800 hectares to the peasants, and left some land fallow (Akçay, 1985, p. 176). Parallel to what happened in the region during the same period, the level of economic inequality intensified, since the combination of the availability of labour replacing technology and the political power allowed the landlord to expand his control over land at the expense of the peasants.

5.2.2 Second phase

When I visited the village in the summer of 2003, I discovered that Sinan was in a significantly different socio-economic and political phase than it had been in the early 1980s. A considerable degree of out-migration to urban areas has occurred. The impact of the GAP appears to have made a huge impact on the village economy, in general, and on social relations between the landlord and the peasants, in particular. In addition, there were some important political developments indicating upfront popular discontent about the level of inequality.

At the time of my survey in 2003, there were 1,138 people living in 146 households. Considering the fact that there were around 105 households and 1000 people living in the village in 1981 (Akçay, 1985, p. 121), it was clear that there had been a net

²⁹ The term ‘capitalist’ implies here that the landlord had begun to utilize technological capital to produce exclusively for national markets, which greatly increased his potential for capital accumulation.

³⁰ If the landlord had full political power to enclose the entire land for his own use, he could have become a fully-fledged capitalist undertaking large-scale, technologically intensive farming.

out-migration from the village to urban areas. If the village population had grown at a natural rate, it would have reached roughly 1,800 in 2003.³¹ This meant that similar to the regional demographic trends, there has been a significant amount of out-migration from Sinan to urban areas since 1980.

As a result of increasing state investment in the irrigation infrastructure through the GAP, the size of irrigated land expanded from around 200 hectares in 1981 to almost 700 hectares in 2003.³² This has brought about a big increase in gross agricultural output value produced in the village. Almost all of the additional irrigated land was devoted to high-value cotton production. At 2003 prices, the gross value produced in the additional irrigated land (500 hectares) was around US\$ 1,225,000.³³ Without the irrigation, this area would have been devoted to low-value cereal production. The gross value output produced on it would have been around US\$ 175,000, almost seven-times smaller.³⁴ This clearly illustrates the huge potential investing in irrigation has for generating accelerated growth in output value production through yield improvements and transition to higher value crops.

The extensive growth in output value has transformed the production relations between the landlord and the peasant. As the area of irrigated land increased, the son of the landlord, who took over control from his father, gradually lowered the size of

³¹ Natural growth rate is taken as three per cent, which was the average annual growth rate between 1980 and 2000 in south-eastern Anatolia (SIS, 1984a; SIS, 2003c).

³² For the 1981 data, see Akcay (1985, p. 123).

³³ Cotton yields were around 3,500kg/hectare, and market price for cotton was US\$ 0.71/kg (1 YTL/kg).

³⁴ For simplicity, wheat was taken as a proxy for cereals. Wheat yields were around 2,500 kg/hectare, and market price for wheat was US\$ 0.25 /kg (0.36 YTL/kg).

his own cultivation, and began to rent-out irrigated land to the peasants.³⁵ By so doing, he seems to have rationalized/optimized his economic relationship with the peasants. He secured a substantial amount of income without engaging in production, while peasants began to have access to irrigated land.

The main reason why the landlord has minimized his own cultivation is economically rational. In areas where the GAP increased the area of irrigated land, it enabled the production of higher-value cash crops, such as cotton. Since such crops mostly require labour-intensive production, small-scale family organization is cost effective. This is because production and management costs are high for large-scale farms undertaking labour-intensive production. The relevant technology to replace labour is either not available or too expensive to justify the opportunity costs.³⁶ Simultaneously, the (opportunity) cost of labour for peasant households is very low, given the levels of un/underemployment and other social factors preventing women from working. Therefore, the landlord was in a position to make risk-free higher profits by renting the irrigated land to peasants than engaging in direct cultivation.

The landlord introduced a fixed-rent system. Households which were willing to rent land had to pay a certain amount of cash to his designated representatives before the beginning of the production season. Since the rent was fixed, and paid in advance, there was no distribution of the risk of production between the landlord and the

³⁵ At the time of the survey in 2003, the previous landlord was not alive, and the landlord family was no longer living in the village.

³⁶ For instance, cotton harvesters have become available only in the 1990s in Turkey. In 2002-2003, its price ranged around US\$ 60,000-250,000, depending on its technological advancement. Unless these prices come down considerably, the opportunity cost of harvester technology does not seem to justify the investment.

peasant. All risks associated with fluctuating yields and/or prices were assumed by the peasant.

At the time of my survey in 2003, one third of the households rented irrigated land from the landlord.³⁷ The size of their operation varied between 1 and 70 hectares, with the average of 6.7 hectares.³⁸ The total amount of irrigated land rented by peasant households was 420 hectares. In the season of 2002-2003, the rent of one hectare of irrigated land was around US\$ 450 (650 YTL). Therefore, the total amount of rent that the landlord collected from the peasants amounted to approximately US\$ 190,000 in that season.

The rental market allowed peasants to integrate into the national and international cotton markets. Since cotton production on irrigated land enabled them to generate up to ten-times higher value per hectare as compared to dry-land cereal production, having access to irrigated-land through the rental market has provided them with the opportunity to engage in better income generating activities. Because labour-intensive production allowed them to utilize their own family labour, which had been mostly idle before they began cotton cultivation.³⁹ Some households have even managed to purchase tractors in the last 20 years. There were 28 tractors owned by peasant households in 2003, although no single household, apart from the landlord and headman, had a tractor in 1980.

³⁷ Some households continued to engage in sharecropping on dry land. The size of their dry plots ranged from 0.5 to 90 hectares. However, one-third of households still had no access to land at all, either through sharecropping or through land rental.

³⁸ These figures are based on the household survey. In addition, according to the landlord's representative, 120 hectares of the remaining irrigated land was rented-out to someone from outside the village.

³⁹ 'Idle' in relation to income generating activities. Both men and women engaged in limited income generating activity before the cotton production.

The village had comparative advantages in labour-intensive cotton production since the cost of labour was relatively low. As compared to the case studied in Chapter III, Tuz in Western Anatolia, the cost of labour was almost 50 per cent lower. Similarly, land rents were 35 per cent lower in Sinan (see Table 5.6, below). However, since the villagers did not own any land, and not registered as farmers, they did not have any collateral to secure official credits. Most of them relied on either their savings from the previous season and paid cash for their inputs, or money they borrowed from their relatives. Some villagers also took loans from cotton traders in Batman to be paid after the harvest. Therefore, it is difficult to assess the weight of (opportunity) credit costs in this case. Nevertheless, relatively low cost of labour allowed those villagers who rented from the landlord to accumulate some wealth to buy tractors.⁴⁰

Table 5-6 Production cost of cotton per hectare in Sinan vs. Tuz, 2003

	Sinan		Tuz	
	US\$	%	US\$	%
Fuel	268	19.4	327	12.5
Seed	87	6.3	100	3.8
Pesticide	94	6.8	100	3.8
Fertilizer	141	10.2	150	5.7
Driver, Guard, Cook	-	-	53	2.0
Land improvements	-	-	33	1.3
Depreciation of implements	27	1.9	67	2.6
Maintenance of equipment	27	1.9	67	2.6
Land tax and protection	-	-	7	0.3
Irrigation	33	2.4	33	1.3
Hoeing (labour)	87	6.3	107	4.1
Harvest (labour)	181	13.1	469	17.9
Rent	435	31.6	670	25.6
Cost of real interest rates	-	-	437	16.7
Total	1380	100.0	2620	100.0

Source: Author's field research in 2003.

⁴⁰ The surplus, they generated was around US\$ 600 per hectare (based on the yields of 3000 kg/ha and the cotton price of US\$ 0.67/kg in 2003).

Some households, which had no access to land of any kind, became agricultural workers. They began to work for cotton-producer households during the hoeing and cotton-picking seasons, about two months altogether.⁴¹ Therefore, increasing irrigation created a land-rental market that optimized the production of labour-intensive crops generating higher value per hectare. This in turn had a welfare effect through increasing the utilization of peasant labour in the village (Sadoulet, et al., 2001, p.196).

However, the rental market was biased because it was built on politically imposed land relations within the village. First, the previous distribution of dry land had a strong effect on which peasant households would have access to the new rental market. For those who had no access to dry land for sharecropping – because of lacking past political affinity with the landlord – the rental market was still mostly closed. The landlord's monopoly power over land was the second obvious reason why the rental market was biased. The peasants had no power to negotiate over the terms of rental or the level of rents. They had to accept whatever the landlord wished to impose. He exploited this power not only to maximize his economic interest but also to sustain his political leverage over the peasants. He prevented some households from renting land while favouring others with better rental terms and better quality land. Therefore, the rental market in Sinan was based upon a politically biased economic rationale. It was not open to all peasants, and hence, it was hindering competition and efficiency.

⁴¹ In 2003, the wage for an adult worker was around US\$ 6 per day.

The landlord's monopoly over land has also determined the way national and international agricultural policies affected the village. For instance, a new subsidy project introduced by the World Bank has radically changed the nature of agricultural subsidies by decoupling them from output.⁴² It granted farmers an annual payment in compensation for the removal of price and input-based subsidies. An amount of approximately US\$ 110 per hectare was granted to all farmers, with a maximum of 50 hectares allowed per farmer.⁴³ The objective was to make small-scale producers benefit more from direct subsidies relative to big landlords who had been enjoying large indirect subsidies (World Bank, 2001, p. 66).

However, at the village level in Sinan, such compensation has not had the intended outcome. I discovered that the landlord was getting direct subsidies for 2,523 hectares of land, 50 times larger than the limit.⁴⁴ According to the peasants, he had found a way of circumventing the 50 hectares cap by abusing another rule of the project, which subsidized the actual person cultivating the land irrespective of who was the owner. The peasants claimed that the landlord had arranged some 50 false rental contracts (each for less than 50 hectares) under his relative's names and those of some villagers, and made the whole land eligible for the direct subsidy.⁴⁵ Apparently, he also collected direct fuel subsidies, which were meant to be

⁴² After the introduction of an IMF stand-by programme in 1999, this project was initiated under the name of Agricultural Reform Implementation Project, ARIP (World Bank, 2001).

⁴³ The upper limit was originally 20 hectares in 2001 (World Bank, 2001, p. 11).

⁴⁴ This information was gathered from the local administration of the Ministry of Agriculture and Rural Affairs. It is based on the total direct subsidy approved for Sinan in 2003. The official information is about the total area (2,523 hectares) subsidized. The suggestion that the whole subsidy was actually received by the landlord is based on my survey in the village.

⁴⁵ The villagers claimed that they had to sign the contracts because the landlord would have punished them by not allowing them to continue to sharecrop or rent his land. However, all complained because they had the right to receive the subsidies, not the absentee landlord.

subsidizing tractor owners.⁴⁶ Although the peasant households who were actually cultivating the land were the legal recipients of these subsidies, no household in my survey stated that they had received direct subsidies from the state.

Therefore, it appears that the new subsidy project turned out to be a very effective way of pouring hundred thousands of dollars to the landlord family, rather than improving the livelihoods of poor peasants. Based on the rate of US\$ 110 per hectare, the landlord seems to have received approximately US\$ 280,000 as direct subsidy for 2,523 hectares of land. In addition, he collected about US\$ 70,000 as fuel subsidy at 2003 prices.⁴⁷ Therefore, the World Bank-initiated subsidy project provided the absentee landlord with a total of US\$ 350,000, while the actual cultivators faced a significant burden of decreasing input and output subsidies.

In the form of direct subsidies and rent (in cash), the landlord extracted around US\$ 540,000 out of the village to Istanbul – where he was living – which had severe consequences for the village economy.⁴⁸ First, since the amount of capital in circulation was limited, the potential for the development of non-farm activity was very low. Apart from two small retail shops and a coffeehouse, there was almost no commercial activity corresponding to the agricultural economy. Since peasants show high propensity to spend their income on locally produced agricultural and non-agricultural goods (Reardon, 2004, p. 5), the siphoning off of large amounts of financial capital by the landlord out of the village inhibits the development of

⁴⁶ The limit of 50 hectares applied for direct fuel subsidies too.

⁴⁷ The total amount of direct fuel subsidy was based on the same amount of land, US\$ 28 per hectare (39 YTL/Ha) at 2003 prices.

⁴⁸ The figure is the sum of the direct subsidies (US\$ 280,000), fuel subsidies (US\$ 70,000), and the rent he collected from the peasants on 420 hectares (around US\$ 190,000 based on rent US\$ 450/hectare). This figure excludes his income (in kind) from sharecropping.

consumption linkages. Second, these transfers drained the local capital that could be spent on agricultural investments. The landlord himself ceased investing in agriculture in the 1980s.⁴⁹ His agricultural machine park has become idle. He left over 1,000 hectares of land uncultivated for consecutive years in 2002 and 2003.⁵⁰ The peasants, on the other hand, had more incentives to invest in technology, yet their means were very limited.⁵¹ As Patnaik (2003, p. 40) argued, those monopolizing land lacked the incentive to invest and those renting in land lacked the means to invest.

The results of my research in 2003, along with previous research by Akcay and his colleagues, show that the landlord-peasant relationship in Sinan has experienced two phases of a dynamic transition since 1950. In the first phase, state-led investment in technology infrastructure through the introduction of tractors was a key factor which enormously accelerated the process of transformation within agriculture through integration into the national markets. However, it was not the peasants but the landlord who purchased tractors, and benefited from the market integration. The peasants faced the bitter consequences of this transition either being driven from the land on which they had traditional rights to sharecrop, or being squeezed into increasingly smaller amounts of land, despite their increasing numbers. This in turn further intensified the level of inequality (both asset and income) in the village.

⁴⁹ He engaged in business activities in the urban sector in the western parts of the country. He is also said to have some trade business in East European countries.

⁵⁰ Based on information gathered from the landlord's agent.

⁵¹ The tractors that some households managed to purchase are usually aged, inadequately equipped and low quality.

In the second phase, which began after 1980, the production relations between the landlord and the peasants experienced transition from a phase in which the landlord undertook direct cultivation through mechanized cereal production, into a phase in which the landlord rented the land to the peasants, who paid in cash.⁵² This transition took place mainly because of the increase in the size of irrigation infrastructure built by the state through the GAP, which brought about a partial transition from low-value cereal production to high-value cash crops, mainly cotton. This in turn necessitated a change in the production organization from being technology-intensive to labour-intensive. The existence of a readily available labour force, which was willing to work at relatively low costs, optimized the transition. As a result, the landlord turned into an absentee who extracted huge amounts of financial resources out of the village while assuming no financial risk of production. This has not only drained the capital for agricultural investments, but also reduced the potential development of non-agricultural activities within the village.

As for small farm efficiency, the case shows that such levels of 'ascribed' inequality constitutes a big obstacle to agricultural growth (Eastwood and Lipton, 2000, p. 50), by harming the operation of potentially more efficient and competitive small farms. In this case, small-scale farming has proved to be cost effective in labour-intensive crops. On irrigated land, cotton producing small farms generated higher net value per hectare than the landlord's own technology-driven operation on dry land. The large stretches of cultivable land that the landlord left uncultivated would have also generated economic value if it was under small-scale farming. It would also have enhanced the livelihoods of the poor through providing them with a certain level of

⁵² Using Kay's (1974, p. 70) terminology, a transition from *Gutsherrschaft* into *Grundherrschaft*.

food security, and through guaranteeing social security in different stages of their household cycle (de Janvry, et al., 2001a, pp. 5-6). Hence, high levels of inequality reduced the full utilization of abundant labour and land resources in Sinan, leading to economic inefficiency and rural poverty.

5.2.3 Peasants united vs. the landlord

The political relationship between the landlord and the peasants, which had been sustaining the economic dominance of the landlord, changed dramatically in 2004. The peasants initiated a grassroots movement against the landlord family, and claimed the ownership rights of the village land. This started when ambiguity amongst the peasants about who actually owned the land began to disappear in the spring of 2004. Until that time, there had been a perception that the state was the actual owner of the majority of the land in the village. Many peasants thought that the landlord had been renting the land from the state for certain periods of time by paying marginal rates, and subletting it to them at higher rates. The arrival of an official letter from the district administration (*Kaymakamlık*) to the village headman changed this perception.⁵³ The letter announced that the state-owned land was to be rented to peasants in the district, which encouraged some peasants to consider renting land from the state. When they approached the administration to make an inquiry about it, however, they discovered that the actual amount of state-owned land was only around 90 hectares, drastically smaller than 1,000 to 3,000 hectares they had

⁵³ In fact, this letter was not something sent to the village of Sinan specifically. Apparently, it was sent to all villages in Bismil, where the state owned some land. The letter was posted to the village's headman to be announced publicly. Some villagers suspected that there were letters of similar content that had been sent to the village; however, former headmen of Sinan had never made them public if/when such letters arrived.

had in mind.⁵⁴ Then they took further steps to find out when this land was actually titled under the landlord's family. After searching in the local administration land registry and in registry archives in Ankara, they discovered that state-owned land in the village had been gradually titled under the landlord's family since the 1950s.⁵⁵ There was still a small area of land in the legal process of being titled by the family. This created great anxiety among the peasants, especially among the younger generation.

Some peasants, then, decided to take common action against the landlord family in order to regain the possession of the land on which they had been working. They claimed that they should have been the legal recipients of the ownership of the state-owned land, because the common practice of the state was to transfer the ownership rights of its land to the farmers who had cultivated it for a certain length of time. They visited the head of the local administration and asked for a new cadastre survey. Unsatisfied by the negative response, they decided to initiate a protest march against the landlord family in the village in August of 2004. They invited local newspapers and TV broadcasters. They prepared banners, slogans and a black emblem to be placed in the gates of the landlord's currently unoccupied house, as a symbol of their opposition to the family. They received considerable media coverage,

⁵⁴ There were huge speculations about the size of the state-owned land among peasants both in 1981, and in 2003. Akcay (1985, p.122) notes figures provided by peasants up to 1,000 hectares in 1981. I was given figures in the range of 1,000 to 3,000 hectares in 2003. Obviously, no one in the village had searched for reliable information through official channels, or those who had, did not manage to achieve reliable information.

⁵⁵ A document they gathered from the land registry archives showed that an official land commission visited the village in 1956. It declared that some plots, which were titled with Ottoman deeds, had no known inheritors in the village. The peasants claimed that the inheritors of those plots were actually living in the village at that time. In fact, currently there are peasants arguing that they were the inheritors of those plots that are mentioned in the document. They claimed that the then landlord bribed the commission to produce the document which then allowed him to get the titles of the plots declared by the commission unoccupied. The author holds a copy of the 1956 document.

both in national newspapers and on TV.⁵⁶ A couple of weeks later, they organized another protest rally, this time in the district of Bismil, which was attended by almost everyone in the village, apart from the very young and old.⁵⁷ That event was more successful in receiving media coverage at the national level.⁵⁸ As a result, trying to raise government and public awareness about the plight of peasants became a fundamental element of the movement.

The tension between the peasants and the landlord family rose after the peasants organized another protest march in the province of Diyarbakır in November 2004. Meanwhile, they took legal action against the landlord for illegally receiving the direct subsidies that the peasants had the right to claim. In return, the landlord, with the objective of punishing the peasants, attempted to cultivate the entire land of the village, preventing peasants from sharecropping and/or renting. He employed tractor drivers from a nearby hamlet, which was known to be loyal to the landlord family. However, the peasants resisted this attempt by occupying the land.⁵⁹ The local military intervened, some villagers and a couple of soldiers were injured during a minor fight, and around 140 protestors were taken in for questioning by the military.⁶⁰ Some of the leaders of the movement stayed in custody for four months.⁶¹ Meanwhile, the head of the district administration intervened to allow the landlord to

⁵⁶ A national newspaper, *Sabah* (24. 08. 2004), reported the protest with the headline 'Kibar Feyzo Gets Real in Bismil'.

⁵⁷ Only three households stayed out of the movement, since they had very close relations with the landlord family.

⁵⁸ *Cumhuriyet* (17.09.2004) 'The peasant's rebellion against the landlord does not end'; *Radikal* (17.09.2004) 'Rebellion against the landlord continues'; *Milliyet* (17.09.2004) 'Tractor chain against the landlord', and *Aydınlık* (19.09.2004) 'The villagers of Sinan of Bismil are determined to get rid of landlordism'.

⁵⁹ *Aydınlık* (12.12.2004). 'The peasant resisted, the landlord's men run away',

⁶⁰ *Cumhuriyet* (09.12.2004) 'Rebellious peasants were taken into custody'.

⁶¹ *Cumhuriyet* (01.03.2005) 'Rebellious peasants were before the judge'. As of June 2005, the trial of more than hundred villagers who took part in the incident still continues.

cultivate some dry land. The irrigated land has not been cultivated, and the landlord refused to rent it out to the peasants. As a result, all peasant households have lost their access to land altogether, and apart from some small amount of dry land, agricultural production came to a halt. In March of 2005, the peasants travelled more than 1,000 km, and organized protest marches in Ankara.

There are a couple of dynamic factors to explain why this overt oppositional movement has emerged recently. First, the social ties between the landlord and the peasants are not based on tribal/kinship linkages. As such, the family lacked the 'social legitimacy' for its dominance over the peasants.⁶² Sentiments of injustice amongst the peasants about the level of inequality are deeply rooted. Even in the 1980s, there were expectations of land reform (Akçay, 1985, p.174). Second, the physical absence of the landlord from the village has weakened his political leverage over the peasants. Apart from his control over the rental market through his agents, he had no pretence of participating in the village's daily political life.⁶³ The third factor was about the political environment at the regional level, which has become relatively more tolerant to civil political action after the armed conflict decelerated in the late 1990s. The flourishing of private media enabled the peasants to voice their protests more effectively. Organizing public rallies and broadcasting them through the private media would not have been possible during the years of the conflict in the 1980s and 1990s.

⁶² This is one of the main reasons why it is less likely to expect collective action in villages where inequality is further strengthened by tribal norms and practices.

⁶³ However, according to the peasants, the headman of the village has always been selected by the landlord.

The peasants' collective action is not motivated by ethnic identity along the lines of regional politics. Even at the height of the armed conflict, there was no peasant participation from the village.⁶⁴ As such, the regional conflict does not seem to have had direct impact on the emergence of the movement. Furthermore, the peasants have never attempted to challenge the state. Instead, they have actively sought to gain the support of state authorities both at the local and national levels. They initiated a mass petition appealing to the President, the Prime Minister and the Minister of Agriculture and Rural Affairs. In their protest marches, they carried Turkish flags and posters of Atatürk. They have deliberately sought to avoid being seen as affiliated to any political Kurdish group. As such, this movement does not seem to set an example of a 'post-modern' anti-state struggle emphasizing regionalism, ethnicity and cultural identity. Rather, it is a movement for economic rights, with peasants clearly positioning themselves against the landlord in the village, and 'feudalism' in the region.⁶⁵ The peasants of Sinan are calling for land reform.⁶⁶

5.3 Lost in transition?

The fate of the region's land distribution pattern has always attracted academic debate, especially in the 1970s and early 1980s. Some scholars believed that the

⁶⁴ There might have been many reasons for this, but there were some obvious 'logistical' factors such as Sinan being a lowland village located on the main road connecting the province of Diyarbakır to Batman, and having a military station within its territory.

⁶⁵ They perceive the existence of landlords as 'feudalism', and they see this as unacceptable at the outset of the 21st century in a country which is applying to join the European Union.

⁶⁶ There have been examples of similar grassroots movements in other developing countries. For instance, the Brazilian landless movement, the MST (Movement of Rural Landless Workers), is one the most successful grassroots movements in Latin America (Wolford, 2003, p.500). The peasant organization negotiates with the state and landowners for land reform settlements. In this way, the MST has achieved settlement negotiations enabling 250,000 landless families to receive over 6 million hectares of land since its establishment in the mid-1980s (For updated figures, see the movement's website at www.mstbrazil.org).

landlordism in the region would dissolve in the last couple of decades. For instance, approaching the issue from a theoretical perspective, Keyder argued that the region's bi-polar landownership structure was not permanent but a transitional one (Keyder, 1983, 47). Having been inspired by the late 19th century theorist Chayanov, who approached small-scale family production with a rather romantic idealization, Keyder argued that large estates, including the one in Sinan, were doomed to disintegrate into small-scale family farms (Keyder, 1983, pp. 46-48). As such, the Keyder's approach was an attempt to stretch a narrow economic/romantic theory for a case that was inherently shaped by political factors.⁶⁷ He paid no serious attention to political factors denying peasants having access to land. He turned a blind eye to inherent asymmetries of power within the rural structure (i.e. between the peasants and landlords). His approach was also criticized because of its overemphasis on inter-village inequality while categorically neglecting intra-village inequality (Aksit, 1993, p. 200).

After a decade of profound climate change in the Turkish political economy (and in academia), Keyder brought a new dimension to his analysis. He claimed that regional development through the GAP had failed because the state had not intervened (through a land reform) to promote labour-intensive small-scale agriculture (Keyder, 1993, p. 106). As such, he was introducing the missing link of politics to small-farm orthodoxy by acknowledging that pure economics was inadequate to capture trends in agricultural transformation. Ironically this time, in analysing the region's lack of economic development, he almost exclusively relied on state politics as a key explanatory factor, assigning no significant role to economics. He paid full attention

⁶⁷ Even the economic grounds of the argument were problematic in their own account. For an extensive criticism of Chayanovian populism, see Patnaik (1979).

to the role of the state, and almost none to his earlier convictions envisaging that small-scale family farms would eventually replace large-scale land ownerships.

There were other scholars – approaching the issue from empirical grounds – who reached similar conclusions implying the dissolution of large-scale ownership. For instance, Aksit and Akcay (1997) based their argument on the evidence they collected through a socio-economic survey. Using the results of a sample of 180 villages located in four provinces in the region, they argued that large land holdings had been in transition, in which the number of landlords and the size of their estates had been in decline (Aksit and Akcay, 1997, p. 527). Moreover, they claimed that many large holdings had been undergoing fragmentation as a result of natural factors, such as inheritance and direct sale, which should be considered as an ‘informal process of land reform’ (Aksit and Akcay, 1997, p. 535).

The scientific validity of this argument, however, begs for special attention. First of all, the sampling of the research was not sufficiently representative to allow general assertions about the region to be made.⁶⁸ Second, measuring the magnitude and the pace of change in land ownership patterns would not be possible without making measurements at two different points in time. As such, the argument about a ‘trend’ of the dissolution of landlordism had no reference point to be based upon. Third, the survey took village as the unit of analysis, and typified it according to the predominance of ‘landlordism’ or large, medium and small farms.⁶⁹ Thus, the

⁶⁸ The research was undertaken in four districts, and the villages were selected disproportionately between them. Approximately 65 % of villages in their sample was in Şanlıurfa, 16 % in Gaziantep, 12 % in Diyarbakır, 8 % in Adıyaman (Aksit and Akcay, 1997, p. 526).

⁶⁹ Aksit and Akşay introduced a household survey in the later parts of their article. However, it was on its own, not supplementing the actual argument based on the village survey.

argument was not based on an analysis of intra-village household differentiation.⁷⁰

As a result, the empirical evidence leading to arguments about the dissolution of landlordism was not rigorous.

On the other hand, there were other scholars who have long been arguing that historical inequalities in land distribution were persistent, so constituted a major obstacle to economic development (Cinar and Silier, 1979, p. 25). Given the regional land censuses data provided in this chapter, the suggestion that there has been a disintegration of large landholdings in the region over the last two decades has no empirical base. In fact, the level of inequality in terms of income generating assets (land and water combined) seems to have increased, not decreased. Those scholars argued – explicitly or implicitly – for the dissolution of large landholding, underestimated, if not misunderstood, the strength of the political and socio-economic establishment sustaining rural inequality.

During the last two decades, land relations have changed, which has altered the ways through which peasants have access to land. But this, by itself, has not weakened the position of the landlords. As in the case of Sinan, many of them enhanced their incomes as the region benefited from increased investment in irrigation through the GAP. It was/is rather naïve to expect a loosening of the landlordism – whose political establishment is so deeply rooted – without observing any political transition which would lead in that direction. Neither Chayanovian neo-populist romanticism, nor

⁷⁰ Ironically, Aksit (1993, p. 200) himself was critical about the attempts (for instance by Keyder (1984)) at analysing agricultural transformation at the village level without considering intra-village differentiation.

arguments that are based on inaccurate empirical evidence are sufficient to declare the region's landlordism dead.

5.4 Conclusion

Since 1980, rural inequality has had a significant impact on the process of rural transformation in south-eastern Anatolia. First, it has affected the transformation from agriculture by leading to a massive rural-to-urban migration. The region had one of the highest urbanization rates in the country. Second, inequality has also determined the impact of the GAP on the region's transformation within agriculture. As the analysis of the empirical data on agricultural output value has illustrated, it seems that the GAP has exacerbated disparities at all levels of analysis, from the household to the region. Especially in provinces where the agricultural components of the project were completed, large landowners have been the major beneficiaries. The bulk of the peasants have benefited from the project only in proportion to their limited access to land and water.

However, this does not invalidate the fact that such a large-scale investment in rural infrastructure was necessary. The GAP has proved that investing in irrigation could generate high levels of progress in the transformation within agriculture by facilitating a transition from low value to high value crops, and increasing yields. Therefore, given that a fraction of the project has been completed, the GAP still has huge potential for agricultural growth. However, the entire agricultural component of the project needs to be reviewed so as to address inequalities in resource distribution.

The village of Sinan sets an example of the persistence of 'ascribed' inequality, which hinders economic development in rural areas. It was 'ascribed', because the

initial appropriation of the entire village land by a single family was a political undertaking. The case shows that ‘ascribed’ inequality can persist, albeit in different forms in different political economic circumstances. The periods of mechanization in agriculture, integrating into high-value commodity markets, national and international policy initiatives (the GAP, direct subsidy project, etc.) intensified the level of inequality. It also illustrates that neither sharecropping nor rental markets promoted competition and efficiency since they were fundamentally biased. In addition, the transfer of large financial resources from the village by the landlord drained the capital for investment initiatives as well as reducing the potential development of non-agricultural activities. Therefore, the process of transformation both from and within agriculture in Sinan remained captive to entrenched inequality. The case also illustrates that it provides a fertile ground for political conflict – as the peasants have recently initiated a grassroots movement against the landlord.

Finally, the issue of rural inequality is also vital in relation to understanding the underlying causes of conflict at the regional level too. Given that the major uprisings that occurred in the region in the last century were rural-based, there is a legitimate case for arguing that structural inequalities in distribution and control of resources (chiefly land and water) have played a significant role in perpetuating conflict. In the last conflict, the PKK recruited a majority of its militants from the masses of landless and poor peasants.⁷¹ As such, inequality in the distribution of rural resources was one of the factors contributing to the widening of the conflict. Therefore, promoting equality in rural areas would also contribute to the post-conflict reconciliation of the region.

⁷¹ In an interview with White (2000, p. 155) in 1992, the leader of the PKK claimed that the ‘social base’ of the movement is landless and poor peasants.

Chapter VI - New Opportunities in the Age of Globalization: A Realistic Policy Approach and the New Social Democracy

This thesis has investigated the economic dimension of rural transformation as an historical process which is completed when societies have achieved a 'modern' stage of development in which the vast majority of their labour force engages in high-productivity manufacturing and service activities while a small minority undertakes high-productivity and high-value agricultural activities. The approach that has been developed here has analysed this process from two dimensions: *transformation from agriculture* and *transformation within agriculture*. It has suggested that if these two processes – a decline in the actual size of rural labour force (*transformation from agriculture*) and a rapid increase in land productivity (*transformation within agriculture*) – overlap, the rural transformation can be considered as a process moving towards 'completion'. Since there has not been any case of a 'completed' transformation over the last quarter of a century, the thesis has taken on the questions of why it has been so, and how such a process of successful 'completion' may take place in today's developing countries in the era of globalization.

The thesis has focused on three main themes. First, departing from observations on worldwide trends in the process of transition of labour from agriculture, it has put forward hypotheses based on demographic, economic and human capital-related (mainly education) factors to explain why it has been slow. Second, the thesis has investigated the process of the transformation within agriculture; its hypotheses accounting for its stagnation were based on ecological, technological, market-related,

distributional and political factors. Third, it has looked at the process of small-farm differentiation and put forward hypotheses explaining the predominance of small farms and the absence of scale differentiation in agriculture. Therefore, through three interrelated themes, the thesis has investigated why the process of rural transformation has been stagnant in the vast majority of developing countries over the last quarter of a century.

The hypotheses have been tested in the case of Turkey. As a middle income developing country having one-third of its labour force working in the agricultural sector, it has provided a good ground to test hypotheses in relation to the three major themes and related research questions. The case has highlighted a common dilemma in a situation where the role of agriculture in economic development is diminishing without this leading to movement of labour out of agriculture. Since both the transfer of labour from the agricultural sector has been slow and the sector itself has been suffering from low productivity, the country's four million small farms have become a labour trap for millions of rural labourers facing poverty.

Then the thesis has taken the analysis into the micro-level through three longitudinal case studies which have provided a thematic review substantiating the analysis at the macro-level. The village of Tuz in western Anatolian shows the impact of a combination of global price trends and the policy framework at the national level on rural transformation. At the commodity level of cotton, it has illustrated an example of profitability crisis in agriculture in Turkey. Taking the case of Sakal in Chapter IV, the thesis has shown the impact of unfavourable ecology on the transformation process. It has illustrated the relationship between unfavourable agro-ecology and

circular and permanent migration from rural to urban areas, and the importance of the transfer of labour to non-agricultural activities within rural areas. Next in chapter V, the case of Sinan has been taken to analyse the impact of an historical legacy of inequality on the rural transformation. It has illustrated how such inequality had an accelerating effect on rural-to-urban migration while hindering agriculture from achieving its full growth potential. Therefore, in each micro-level case study, the thesis has underlined certain major themes to deepen the analysis developed at the macro-level.

This final chapter builds on the case studies and defines the boundaries of the agro-realist approach proposed in this thesis. First of all, it reprises each of the three themes by grounding them in a macro-level analysis at the country level and micro-level case studies at the village level. It summarizes the major findings of the research, and their relevance to the central thesis question. Then, the second part opens out into a discussion of recent debates on the role of agriculture in economic development, and clarifies the position of this thesis. Finally, the chapter concludes by reflecting on some new opportunities for making progress in the rural transformation. In particular, it reflects on the recent calls for different policy frameworks - such as new social democracy - providing an alternative to the 'Washington Consensus.' In so doing, it aims at contributing to the development of an operational framework through which the completion of the rural transformation can be envisaged in developing countries in the age of globalization.

6.1 Transformation from agriculture: slow

Analysing trends in the urban and rural labour force in Turkey has shown that although the services and manufacturing sectors have grown considerably, there has not been substantial transfer of labour from the agricultural to non-agricultural sectors over the last 25 years. The contribution of the services and manufacturing sector to the country's GDP tripled between 1980 and 2004, however the size of rural population of working-age (15-59) continued to rise. Both demographic and economic factors have been unfavourable for the transition.

Rapid urbanization mainly driven by urban population growth rather than by rural-to-urban migration has resulted in a rapid increase in the size of the urban labour force. In addition, fertility and mortality decline have expanded the size of population in working age in both urban and rural areas. Hence, the labour supply has increased substantially. On the demand side, however, the level of non-agricultural growth and its labour absorption capacity have not been adequate to match the growth in the labour supply. This has created huge unemployment and low labour participation in urban areas which has limited the non-agricultural demand for rural labour force. Therefore, Turkey has shown that there has been a big mismatch between population growth and the labour absorption capacity of non-agricultural growth. Hence the pull factor – urban demand for rural labour – has been weakening, if not disappearing, which has hindered the labour transition from the agriculture to non-agricultural sectors.

Although, the level of non-agricultural growth has been inadequate to absorb large amounts of surplus labour from the agricultural sector, the service sector has been the

main driver of the labour transition in both urban and rural areas. This is mainly due to the fact that the employment elasticity of the services sector has been substantially higher than that of the manufacturing. Every additional contribution of the services sector to the country's GDP has created twice as many jobs as compared to the contribution of the manufacturing. In rural areas, on the other hand, the share of the rural labour force engaging in services increased from around 20 per cent in 1988 to 25 per cent in 2004, while the share of manufacturing activities has not seen significant growth, staying around less than 10 per cent (SIS, 2006a). Therefore, growth in the services sector, with its higher employment elasticity, plays a bigger role in the transformation from agriculture.

The case of Turkey has also shown that the rural labour force's low level of educational attainment is a major factor discouraging the labour transition further. This is mainly due to the fact that the urban market for low-skilled labour has already been saturated by the urban labour force itself. As such, the absorption capacity of non-agricultural growth for low-skilled rural labour is smaller than its capacity for relatively higher-skilled urban labour. Therefore, having a low level of education is a major factor reducing the chances of rural labourers to find employment in the non-agricultural sectors. Moreover, the modernization of the urban non-agricultural sector further de-links them from non-agricultural growth.

The spatial dimension of the labour transition in historical sense – rural to urban migration – no longer appears to be an indispensable aspect of the transformation process. While the speed of rural-to-urban migration has slowed down, a slow but significant extent of labour transition from agricultural to non-agricultural activities

within rural areas has taken place in Turkey over the recent decades. The net migration decreased from an annual level of 1 million people in the early 1980s to 300,000 by the early 1990s, whereas the share of households engaging in non-agricultural activities in rural areas has increased from 10 per cent to 30 per cent (SIS, 1982; SIS, 2004). Therefore, the process of labour transition non-agricultural activities within the rural space seems to be offering an alternative to the spatial transformation through rural-to-urban migration.

In sum, Turkey's experience over the recent decades has illustrated that, unlike any other previously 'completed' transformations, the growth in the urban manufacturing and services sectors no longer provides a significant stimulus for the labour transition at the macro level. However, there has been some limited extent of labour transition within rural areas, indicating that the labour transition may take place without rural-to-urban migration. On the other hand, unlike the previous cases, the services sector – rather than the manufacturing – with its higher labour absorption capacity, seems to be the driver of the transition of labour out of agriculture. Hence, Turkey, in common with the vast majority of developing countries, has been experiencing an era of economic modernization (growing share of the non-agricultural sectors in total output) without experiencing a substantial transformation through the shift of labour out of agriculture.

6.2 Transformation within agriculture: stagnant

The case of Turkey has shown that the agricultural sector has been stagnant and there have been very little improvements in yields and transition to higher value cropping patterns over the last 25 years. The bulk of the country's cultivable land has been

devoted to low value staple food production with historically low yields. The cropping pattern has not seen a significant change and the process of transition to higher value industrial crops, fruits and vegetables has been stagnant. In output value terms, the growth performance of the sector has been poor, with an average growth rate of around one per cent per year since 1980. Hence, Turkey has illustrated a case whereby the slow process of transformation from agriculture has been accompanied by a slow process of transformation within agriculture.

The thesis has analysed five major obstacles that have affected the transformation within agriculture.

It has first investigated the ecological dependency that Turkey has not managed to overcome through technological progress over the recent decades. The difficulties in the structure of terrain (high altitudes and high slopes), unfavourable temperatures (cold stress), relatively low levels of precipitation and the low average length of growing period have continued to determine cropping patterns and yields over large parts of the country's arable land. Since Turkey has been slow in adopting and implementing all the components of the Green Revolution, it has not been able to reduce the impact of these serious ecological constraints. Although the mechanical dimension of agricultural technology has been continuously improved, biological, chemical and infrastructural dimensions have not seen significant progress. As a result, the growth performance of Turkish agriculture has remained heavily dependent on ecological constraints with regional variations (Akder, et al., 2000).

The village of Sakal that was studied in Chapter IV illustrates the impact of unfavourable agro-ecology on the transformation process at the local level. Suffering from the general ecological characteristics of the region of central Anatolia – such as high altitude, cold stress, low precipitation and short growing period – low value staple food production at extremely low yields has continued to dominate the cropping pattern. Since the village is almost untouched by the Green Revolution, and the intensive use of chemical fertilizers, high quality seeds and irrigation, cereal yields have seen no substantial improvements for almost half century, and stayed at historically low levels. Sakal has shown that a combination of unfavourable ecology and the lack of technological progress is the fundamental factor hindering the transformation within agriculture.

Turkey has demonstrated the impact of the classical market obstacle arising from the low income elasticity of demand for staple food products. Expectedly, the demand for staple foods has grown only marginally, well below the rate of the country's overall economic growth. Furthermore, the relatively skewed distribution of the country's disposable income has created an asymmetrical demand structure which is not conducive for the transition in cropping pattern. It has led to a shallow but broad demand-base for low value staple foods, while there is a deep but narrow one for commodities of high income elasticity. Therefore, a combination of almost flat demand for staple foods, skewed income distribution and weak demand for higher income-elasticity commodities have created a big obstacle for the transition to higher value cropping patterns.

Turkish agriculture has also been badly affected by a downward spiral of declining commodity prices, profitability, investment and low growth. Global prices have been going down over the last three decades, and the terms of trade have been unfavourable for agricultural commodities. At the national level, prices for the majority of commodities have fallen rapidly since the second half of the 1990s. On the other hand, the cost of major inputs has increased, leading to a decline in the profitability in the sector as a whole. The level of investments especially, from the private sector, has also been deteriorating. Falling commodity prices have reduced the output value generated in the sector, while also discouraging investment and growth.

The village of Tuz in western Anatolia exemplifies the impact of price trends on agriculture at the village level. Although it enjoys a perfect combination of favourable ecology, full adoption of all the components of the Green Revolution, and advanced agronomic practices, its economy suffered from the declining world prices and increasing cost of production, pushing producers into a profitability crisis. Although farmers in Tuz have managed to achieve one of the world's highest yields in cotton, they have not been able to reap the benefits of their exceptional achievement due to falling margins. The case has also shown the direct impact that trade distorting domestic subsidies, export support and protection policies of major developed countries have had, suppressing world prices artificially.

With the help of the third village study, Sinan in south-eastern Anatolia, Chapter V has shown the impact of historical inequality in land relations on the transformation within agriculture. Sinan is located in the region which illustrates an exceptionally

high land inequality originating from centuries of political patronage between the central state and peripheral elite. The case has illustrated that since such inequality is based on political factors rather than merit, operational efficiency and market performance, it encourages rent-seeking and hinders the efficient allocation and utilization of natural and human resources. Therefore, it constitutes a big obstacle for the transformation within agriculture.

Turkey also exemplifies the impact of 'structural adjustment' programmes in the 1980s and their 'Washington Consensus' version in the 1990s. Both the first example of 'structural adjustment' in 1980 and the 'Washington Consensus' in the late 1990s came as a result of two major crises in which the country's economy came close to collapse. The severity of the crises pushed the government into a position whereby it was dependent on the external support of the IMF and the World Bank. The bail-out programmes, by design, had a narrow and exclusive focus on achieving fiscal stability, even at the expense of the agricultural sector. The conditions attached to the programmes substantially reduced the role of the government in providing services and support which were essential for the sector. However, in periods of relative macro-economic stability, the government's agricultural policies were tied to electorate politics aiming at populist returns rather than facilitating agricultural growth through investing in infrastructure, research and development and other productivity enhancing services.

Turkey's slow progress in its agricultural transformation is directly linked to its low level of integration into world cereal, fruit and vegetable markets. Its trade policy is highly defensive, aiming at protecting a large number of small farms undertaking

low-productivity cereal production which the country has comparative disadvantage. Such a high level of protectionism penalizes consumers, mainly the poorest segments of the society, who have to pay higher prices for basic foodstuff than they would have paid under a less restrictive trade policy. On the other hand, Turkey is not able to capitalize its full potential in (high-value) fruit and vegetable export markets where it has a comparative advantage. This in turn slows down the transition from low to high-value cropping patterns. Moreover, the country has not been able to attract significant amount of foreign direct investment going into the sector. Although there has been a substantial change in food chains through the increasing diffusion of supermarkets, this has not yet resulted in a significant extent of contract farming. Hence, the vast majority of small farms in Turkey, neither taking part in global trade nor benefiting from foreign direct investment, have been left out of the process of economic globalization.

6.3 Small farm (in)differentiation

The thesis has also analysed the factors determining the predominance of small farms and the process of scale differentiation in agriculture. The approach developed here argued that the dominance of small farms is a phenomenon arising from lack of rural transformation. Since the marginal demand for unskilled rural labour has been low and getting lower, the opportunity cost of staying in agriculture has been falling at the household level, which has discouraged small farmers from leaving agriculture. On the other hand, the predominance of low-value and low productivity activities within the agricultural sector has restrained accumulation. Therefore, scale differentiation has not taken place in any significant extent and small-scale farms have continued to dominate the agricultural sector.

At the village level, in Tuz, which has experienced high levels of agricultural growth through increasing productivity, small farms have continued to predominate in numbers, although there has been some significant land accumulation (mainly through rental and sharecropping markets). That is to say, land accumulation at the operational level has taken place without the differentiation (disappearance) of small farms. The persistence of small farms was not due to their superior efficiency, since there was no correlation between farm size and land productivity. It was mainly due to two counterbalancing factors hindering the differentiation process in the periods of both high and low agricultural growth. In the absence of the labour transition, in periods of high agricultural growth, higher land prices and increasing opportunity cost of leaving agriculture (for small farms); in periods of stagnation, the weakening accumulation potential of large farms and continuous status of agriculture as the last resort income activity (for small farms) has hindered the process of scale differentiation. Therefore, the case has illustrated that labour transition away from agriculture is an essential part of the process of scale differentiation.

On the other hand, the case of Sakal shows a different process of scale differentiation. In this case, the transformation from agriculture has been taken place. However, the transformation within agriculture has been stagnant and farming has lost its significance as an income activity for the vast majority of households. As the households move to non-farming activities, the number of farms in the middle land-ownership categories has decreased, along with an increase in the number of smallholdings and landless households, indicating a significant extent of land fragmentation. However, since yields and agricultural value productivity were so

small, the demand for land was almost insignificant. Hence, there has not been an increase in the proportion of higher ownership categories. Although many households left agriculture, this has not led to a significant extent of land concentration. Therefore, in the absence of transformation within agriculture, small farm differentiation (disappearance of small farms) has taken place without land concentration.

A totally different process has been in place in Sinan. It represents a case of politically enforced land concentration, which does not have any similarity to the two opposite trends above. A high level of initial land concentration was not based on the process of differentiation but based on political land grab. Over the last decades, land relations have changed, which has altered the ways through which small farms operated. For instance, they faced the risk of extinction before the 1980s due to the landlord's enclosures. However, in the 1990s, the introduction of labour-intensive cotton production has revitalized them at the operational level through the rental market. Yet, this has not weakened the dominance of the landlord, or affected the level of inequality in ownership. Hence, in Sinan, the history of land concentration has pushed the process of differentiation to a political realm.

6.4 Neo-populism vs. agro-pessimism

The approach developed in this thesis positions itself in recent debates on the role of agriculture in economic development. It argues for a framework which synthesises the processes of labour transition, agricultural transformation and small-farm differentiation. It reflects on Lewis's (1954) 'disguised' unemployment in the agricultural sector while questioning whether the 'conventional wisdom' on the role

of agriculture in overall economic development is still relevant in the context of Turkey. On the policy dimension, on the other hand, the realist approach takes the middle way in the recent debate between the ‘neo-populist small-farm orthodoxy’ and the agro-pessimist ‘rethinking rural development’ schools.

As for the transfer of surplus labour from agriculture, the approach developed in this thesis departs from the Lewis’s thesis on the supply elasticity of rural labour force and ‘disguised’ unemployment in the agricultural sector. It argues that the agricultural sector still offers a perfectly elastic labour supply to the non-agricultural sector. This is mainly due to the fact that the size of rural labour force has been increasing and the level of labour productivity is extremely low in the agricultural sector. Similarly, since there is a huge room to improve productivity in the agricultural sector, Lewis’s concept of ‘disguised’ unemployment – suggesting that if a part of the labour force was removed from the agricultural to the non-agricultural sector, the total agricultural output would not change – retains its relevance.

However, this thesis’s position differs from the ‘Lewisians’ by arguing that the supply elasticity of agricultural labour is no longer relevant so as to drive non-agricultural growth.¹ Given the growing size of urban labour force, and the high levels of unemployment and underemployment in urban labour markets, the urban labour supply has become highly elastic too. The abundance of urban labour supply has diminished the importance of cheap labour force for the urban non-agricultural sectors. Hence, the agro-realist approach can be considered as ‘neo-Lewisian’ in acknowledging the existence of perfectly elastic labour supply and the ‘disguised’

¹ For contemporary interpretations of Lewis’s model, see, for instance, Fields (2004) and Tignor (2004).

unemployment in the agricultural sector, however, it argues that the linkage between the rural labour supply and urban non-agricultural growth no longer exists.

This thesis also questions the ‘conventional wisdom’ on the role of agriculture in overall economic development in Turkey. The importance of the backward and forward linkages of agriculture specified by Johnston and Mellor (1961) in the 1960s has been diminishing, not necessarily only as a normal outcome of the country’s economic development. First, as is dealt with above, the agricultural sector as a supplier of cheap labour is no longer important although it still retains a large labour surplus. Second, its function as a domestic supplier of food can now be bypassed by international trade. Since global market prices for major staple food are consistently lower than domestic prices – almost two times as low in some periods in the 1990s – importing food can alternatively serve to the dual-purpose of feeding populations and keeping real wages down. Third, agriculture’s contribution to foreign exchange earnings is no longer significant – given the declining terms of trade and the share of agricultural exports in total over the last three decades.

Fourth, the agricultural sector is no longer in a position to provide capital for investments in the non-agricultural sector, given the ‘low price–low margin–low capital investment trap’ in itself. It is rather in a position to receive capital and welfare transfers from the non-agricultural sector in the form of direct and indirect subsidies. Finally, rapid urbanisation has diminished the relative importance of the rural consumer-base providing a market for urban goods, although the size of rural population has remained almost the same over the last three decades. Moreover, since the level of labour productivity and thus disposable incomes are relatively low

in rural areas, the average purchasing power of a rural consumer is substantially lower than that of an urban consumer, which further reduces the relative importance of the size of rural consumer demand for the urban sector.

Therefore, this thesis suggests that agriculture no longer plays the roles in overall economic development which it attributed with in the 1960s and 1970s. It argues that a new role for agriculture needs to be defined within the boundaries of its functions in rural economic development and poverty alleviation. It is still the major source of employment for the vast majority of rural populations that have been left behind the process of economic development. It provides food security for the rural poor, functioning as a livelihood resource of last resort. Finally, through its 'upstream' and 'downstream' linkages it stimulates the development of non-farm activities within rural economies. Hence, this thesis argues that although agriculture 'has had its day' in industrialisation as a source of labour, and in overall economic development through its production, expenditure and investment linkages, its role in rural economic development and poverty alleviation is still crucial for billions of people living and working in rural areas around the world.

6.4.1 The new debate

This thesis also takes a position in the new debate between the neo-populists and the agro-pessimists on the role of agriculture and small-scale farming in poverty alleviation and economic development in the context of globalization. It distances itself from the neo-populist paradigm of small-farm efficiency envisaging that small-scale farming can still play a major role in economic development. Similarly, it positions itself away from the deterministically pessimistic view of the 'rethinking

rural development' school on the future viability of small farms. Hence, rather than subscribing fully to either school's line of argument on major issues such as the importance of non-agricultural activities, the impact of prices, land inequality, and the future of small farms, the agro realist approach aims at synthesising their strong points.

The transition to non-farm activities in rural areas in general, and in providing alternatives to small-scale farming in particular is very relevant for the debate between the neo-populists and the agro-pessimists. Neo-populists address the importance of non-farm activities mainly in the case of strong production linkages derived from growth in the agricultural sector (Lipton, 2005, p. 9). They argue that income diversification is a demand-driven process occurring as a natural consequences of economic development in general, agricultural growth in particular (Hazell and Diao, 2005, p. 27).² In that respect, they imply that non-farm activities are beneficial if they came as a consequence of agricultural growth, rather than as an outcome of 'distress diversification' (Lipton, 2005, p. 9). However, as the case of Sakal has illustrated, even 'distress diversification' can be vital in providing alternative source of income to farmers in unfavourable agro-ecological zones. Without relying on non-agricultural sources and circular migration, many villagers in Sakal would have faced severe poverty over the last 50 years, given the level of their agricultural productivity. In such zones and high population densities, diversification to non-farm activities, whether it is distress or not, permanent and circular migration are major alternatives to agricultural activities.

² Also in (Diao, et al., 2005).

On the other hand, agro-pessimists suggest that ‘agriculture has had its day’, and diversification from agricultural to the non-agricultural activities, which has already been underway in many rural areas, is the way forward (Ashley and Maxwell, 2001, p. 404).³ However, they seem to underestimate the fact that non-agricultural activities may suffer from severe productivity problems and face competition from urban areas. As the case of Sakal has illustrated, they face severe sectoral and locational competition, which may even lead to their disappearance. Furthermore, some of these activities are of very low productivity encountering significant present and future viability problems that are similar to those faced by the small-scale farms. Therefore, this thesis argues that since the demand for rural labour from urban non-agricultural sector is shrinking, the transition to non-farm activities within rural areas now provides a major alternative way of transformation from agriculture. However, their significance should not be overestimated given their low level of productivity and competitiveness.

The neo-populist school seems to ignore, rather romantically, how badly the agricultural sector dominated by small farms has been performing over the last 25 years. Productivity growth in the sector has been sluggish, and its contribution to over-all economic growth has been falling steadily. In particular, their position does not offer much explanation on the fact that margins are under immense pressure because of commodity price declines and rising costs. This in turn leaves many small farms with profits too small to generate decent incomes. Neopopulists focus almost exclusively on farm size and productivity related operational advantages of small-scale family production, while they pay little attention to profitability and farm

³ This is also a fundamental position of the ‘livelihood approach’ arguing for the diversification away from small farms, among others, see (Ellis, 2000).

incomes. The 'rethinking rural development' school, on the other hand, stresses that agricultural commodity prices have dropped substantially over the past 30 years. The removal of input subsidies has increased the cost of inputs, which has shrunk margins in the sector as a whole (Ashley and Maxwell, 2001, p. 404). As the case of Tuz has shown, the declining prices and profitability has affected even the world's most efficient small farms. Hence, this thesis takes the pessimistic approach in acknowledging the 'profitability crisis' in agriculture.

As for inequality, neo-populists have always argued that promoting more equal distribution of land is essential for agricultural growth in regions of high inequality. For example, Lipton argues that 'ascribed' inequality is a 'deadweight tax' on agricultural growth, since it harms efficiency and competition (Eastwood and Lipton, 2000, p. 50). It reduces the full utilization of labour resources in areas where it is abundant. In such areas, small-scale production is cost effective (in labour-intensive crops), and it generates higher net value added per hectare (Eastwood and Lipton, 2000, p. 55). Therefore, neo-populists argue that shifting towards more equal landholdings is vital for poverty alleviation in regions of high land inequality (Lipton, 2005, p. 17). Agro pessimists on the other hand, do not seem to be as sensitive on the issue of inequality, and its impact on poverty. With their rather apolitical position, they pay little attention to the political and social factors and related asymmetries of power within rural societies denying peasants to have access to income generating assets. Their argument is based on the conviction that small-scale farming is not efficient. Therefore, they generally oppose the idea of land reform.

Departing from the case of Sinan, this thesis argues that the neo-populist position in inequality is entirely legitimate. Historically 'ascribed' inequality in land and water has proved to be the biggest obstacle to agricultural growth by preventing the efficient allocation of resources and by hindering production, spending and investment linkages to generate growth. It has constituted a major cause of rural poverty by denying peasants sufficient income, and by preventing them from using their labour assets and skills. The asymmetrical power relations between the landlord and the peasants have created an agricultural development path determined by the landlord's rent-seeking activities. The case has also suggested that ascribed inequality is a major factor causing political conflict. Therefore, this thesis acknowledges that having access to land enhances rural livelihoods through providing peasants with income and food security, and through guaranteeing social security in different stages of their household cycle (de Janvry, et al., 2001a, 5-6). Hence, it takes the positions of the neo-populists and argues for more equal distribution of land and water in areas of high ascribed inequality.

On the question of the dominance of small farms, the position that this thesis takes differs from the fundamental proposition of the 'neo-populist' school led by Lipton, suggesting that since small farms dominate the rural space in terms of the proportion of agricultural value-added, area and workforce, their resilience and persistence can be taken as an indication of their present and future viability (Lipton, 2005, p.1). The 'inverse relationship between farms size and productivity' still constitutes the theoretical foundation of this argument. However, this thesis suggests that neo-populists, since Chayanov, relied too heavily on the relationship between farm size and productivity as their main explanatory factor while categorically neglecting

labour productivity and the processes of labour transition away from agriculture. Although, they acknowledged the obvious trend of increasing farm size with economic development (Eastwood, et al., 2004, p.3), they seem to ignore increasing land productivity that come along with it. This thesis argues that the so called inverse relationship between farm size and productivity does not hold if the rural transformation is progressing towards completion.

By the same token, agro-populists' strong emphasis on small farm efficiency based on their low-cost advantage in labour supervision (since they usually rely on family labour) seems to be problematic too.⁴ In the light of the village studies, it appears that such an advantage is significant, with some qualifications, in the first village, totally irrelevant in the second, and captured also by the large landlord in the third. In Tuz, although the supervision costs of labour was higher for large farms, even some small farms (around two ha) had to rely on external labour during the peak times of harvest. The extent of labour supervision costs was also affected significantly by the origin of hired labour (whether from the village itself, neighbouring villages, from the Aegean region or from eastern Anatolia) and by the nature and the time-span of the relationship between the labourer and the farmer.⁵ In the case of Sakal, hiring an external labourer was not a practice at all, regardless of farm size. Even the largest farms (around 25 ha) did not hire external labour, making supervision costs irrelevant. On the other hand, in Sinan, the landlord who used to undertake capital-

⁴ While the term small farm and family farm often used interchangeably (given the fact the vast majority of small farms operated by families labour), the term large farm are rarely used in the context of family farms. The natural outcome of this is that the supervision cost advantage of family farms are considered only for small farms, not for large family farms. Therefore, the neo-populist approach intrinsically ignores the possibility of small-farm differentiation into larger family farms with higher labour productivity.

⁵ The introduction of the mechanical cotton harvester can change these labour relations radically, making the cost of supervision less significant.

intensive large-scale cereal production has captured the benefits of the managerial advantages of small farms after irrigation made his land convenient for labour-intensive cotton production. He rented-out his land and successfully passed on the extra cost of supervision (arising from the transition to labour intensive cotton production) to peasant families. Therefore, advantages of small farms in relation to supervision costs are not universal, only arising in certain contexts with significance of certain limitations.

Agro-pessimists on the other hand are sceptical about the future viability of small farms, and they propose that the farm size will increase (Ashley and Maxwell, 2001, p. 401). In the terminology that has been used in the thesis, they argue for the process of small-farm differentiation. However, this thesis suggests that without experiencing the right combination of rapid growth (with high employment-elasticity) in non-agricultural activities in both rural and urban areas, and high growth in agriculture, small farms cannot go through the process of scale differentiation. If the trends over the past 25 years continue, in contrast to the agro-pessimists' argument, small farms will continue to dominate the agricultural sector, however not due to their superior efficiency as the neo-populists argue but as a result of the lack of rural transformation.

Turkey at the macro-level and three different case studies at the micro level have proven that there is no ground for determinism in explaining the process of scale differentiation in agriculture. Neither Chayanovian neo-populism attributing small farm an a-historical potential to persist, nor Kautsky's approach arguing for their ultimate disappearance, were sufficient to explain the process. Similarly, the old

debate in Turkey, between those along the lines of the neo-populist school, such as Keyder, and those following the leftist tradition, such as Cinar and Silier, seems to have been futile. At the country level, the land censuses have shown that there has not been a significant extent of scale differentiation in Turkish agriculture. Both the distribution of land and the average farms size have not seen significant change since 1980. At the village level, on the other hand, the cases of Tuz, Sakal and Sinan illustrated that the scale-differentiation process can take totally different forms. Therefore, rather than relying on deterministic explanations, this thesis relies on factors affecting the rural transformation at the local level to explain the process of scale differentiation in agriculture.

In order for scale differentiation to take place, high levels of agricultural growth should raise the accumulation potential of farms while an increasing labour demand from the non-agricultural sector (both rural and urban) increasing the opportunity cost of staying in agriculture which would then encourage the labour transition. Ideally, the opportunity cost of staying in agriculture should increase quicker than the opportunity cost of leaving, which would encourage the differentiation process through land concentration. That was what the majority of today's developed countries experienced with their rural transformations. It was achieved by high levels of non-agricultural growth with high employment elasticity – the pull factor that increased the opportunity cost of staying in agriculture.⁶ At the same time, the opportunity cost of leaving agriculture also rose through technological and infrastructural development allowing competitive farms to accumulate surplus and expand their operation. However, the former increased relatively faster than the

⁶ It was also supported by an increased skill-base of the rural labour force through higher education (in the cases of the Asian Tigers)

latter, which enabled the 'completion' of the structural transformation. Therefore, a simultaneous process of high agricultural growth and even higher level of non-agricultural growth with high employment elasticity is necessary in order to achieve scale-differentiation in agriculture - the disappearance of inefficient farms and land concentration leading to increasing labour productivity.⁷

6.5 The future of small farms

Although the overall picture of rural transformation over the last three decades is to a large extent pessimistic, there are now new opportunities for making progress in the age of globalization. Non-farm activities within rural areas, higher education, and new calls for free international movement of labour may offer some new opportunities for the process of labour transition from agriculture. On the other hand, revolutionary biotechnological innovations, new market opportunities for labour-intensive high-value agricultural commodities, emerging developing country coalitions pursuing a fairer global trade regime, a new wave of community-based land reforms, and recent calls for new policy frameworks, such as the new social democracy, providing an alternative to the 'Washington Consensus' are some of the major opportunities that may facilitate the transformation within agriculture. Hence, despite the current situation, there is some room for cautious optimism for making progress in the rural transformation in the age of globalization.

⁷ This does not suggest that all small family farms would disappear. Some family farms, those which are competitive will remain small (high-value commodity producers with already high land and labour productivity), some family farms will be larger but remain as family farms relying exclusively on family labour.

However, making significant progress requires new and efficient public institutions and rural development strategies that are capable of incorporating immense variations in rural areas. The trajectories of the three cases provide some insight as to the extent of variation at the local level. It is hard to envisage a policy approach that is designed for one case to work effectively in another. Nevertheless, there is a need for broader strategic choices too. This entails promoting labour transition from agriculture in areas of low productivity low-value cereal production, and encouraging diversification to high-value markets in rural areas of high potential. It also involves adopting a proactive trade policy where a country's comparative advantages can effectively be utilised. Yet this is not to suggest that old public institutions should resume their previous role of providing services which were usually ineffective, inefficient and often corrupt. Developing new institutional frameworks that are capable of designing macro-level strategies and micro-level policy interventions is urgently needed.

6.5.1 Labour mobility

The declining share of agriculture in GDP, while retaining large share in labour force means that agricultural growth (even if at relatively high levels) will not be adequate to bridge the gap between agricultural and non-agricultural productivity. Hence, the transition of labour out of agriculture to more productive sectors should be the primary aim of any transformation strategy. There are four major ways that the process may be stimulated. First, the transition from agricultural to non-agricultural activities in rural areas needs to be promoted especially in areas where the potential for agricultural development is ecologically low. As in the case of Sakal, new communication and transportation infrastructure stimulates the development of the

non-agricultural sector by eradicating the physical boundaries between the rural and urban spaces. Second, providing higher education in rural areas would ease the process of labour transition through rural-to-urban migration. As is indicated above, the demand elasticity of non-agricultural growth for workforce with higher education is substantially high. Thus, having higher education would enable rural labourers to enter into lucrative urban labour markets.

Third, the growth in both the domestic and export-oriented services sector offers a big opportunity. At the local level, non-agricultural activities in rural areas are predominantly service oriented. At the national level too, the growth in the services sector absorb substantially larger amount of labour as compared to the manufacturing sector. Since the income elasticity of demand for services is relatively higher than for manufactured commodities, increasing disposable income in urban areas stimulates the services sector with higher labour absorption capacity, creating stimulus for labour transition out of agriculture. At the global level, since developed countries have a high-income consumer base with increasing demand for services, promoting the export-oriented services sector, such as rural tourism (Ashley, 2006), can make a substantial contribution to the labour transition process in developing countries.

Fourth, the missing dimension of economic globalization – free movement of labour – can stimulate the labour transition. Although, currently it is not a part of multilateral trade negotiations (apart from those regulating temporary movement of natural persons, ‘Mode 4’ – a technical subgroup of the General Agreement on Trade in Services of the World Trade Organization), the demographic trends in the majority of developed countries (shrinking labour force and mounting problems of social

security services due to aging populations) and readily available labour supply in many developing countries is pushing the issue into the agenda of international development. A freer movement of semi-skilled and unskilled labour from developing to developed countries would not only generate economic gains (larger than those created by liberalisation in other factors of production) for both developed and developing countries (Rodrik, 2002, pp. 19-23), it would also reduce unemployment and underemployment in developing countries. This in turn would increase the domestic demand for labour and thus the transition of labour from agriculture.

6.5.2 Ecological dependency vs. biotechnology

As for the transformation within agriculture, the biggest obstacle, ecological dependency, may now be partly overcome through the revolutionary progress that has been taken place in agricultural biotechnology, including genetic engineering. New technology goes beyond the boundaries of Mendel's revolutionary discoveries in plant breeding in the late 19th century. It makes it possible to breed transgenic crops by using desirable genes from radically wider range of donor species. It has been used to develop new varieties with features that have been outside the realm of conventional breeding, such as herbicide tolerant cotton, insect resistant corn and drought tolerant wheat. What the new biotechnology potentially offers is raising agricultural productivity in general, but particularly in ecologically unfavourable areas where that has not been possible/feasible by using conventional technology.

However, biotechnology, especially some applications of genetic engineering, and its potential impact on the environment have become an issue of fierce public debate.

The opponents of the technology argue that genetically modified crops threaten biodiversity – as new varieties may lead to the genetic contamination of wild species. They are also concerned about the possible health risk in relation to the consumption of genetically modified organisms. On the other hand, the proponents argue that it is good for resource sustainability, since new types would reduce the pressure on land (by offering higher yields), on water (by higher water efficiency), and pollution (by reducing the use of chemical pesticides and fertilisers). They also argue that some new types could reduce the greenhouse impact of agriculture – as they do not require tillage. As such, the debate is between those seeing this technology from a risk perspective and those who see it as a historic step in human capacities to overcome ecological constraints.

The public perception and preferences of risk about the new biotechnology is a major factor affecting the whole debate. Whether peoples' attitudes towards GM food affected more by their risk perception or by their risk preferences depend on the social context (Lusk and Coble, 2005, p. 404).⁸ Nevertheless, the future direction of the new technology is likely to be affected by risk attitudes shaped by a combination of cultural, political (politics of information) and psychological factors.⁹

The debate also reflects the economic interests of major parties involved. There have been major trade disputes in the WTO between countries that have a comparative

⁸ While risk behaviour is more about inherent individual/cultural domain which is relatively static, risk perception is more dynamic as it is shaped by education, information and the medium through which the individual interacts with information. For instance, a recent study conducted in Germany and Sweden shows that individuals' perception is strongly linked with the source of information that they rely on (journals, TVs etc.) and their perception about the source itself (i.e. whether they 'trust' the source or not) (Kohring, et al., 2006). However, it should also be noted that the process of individual's risk perception is not necessarily a 'rational' one, influenced by popular cultural images, primordial fears and fiction etc. (Gaskell, et al., 2006, p. 204).

⁹ This also raises philosophical questions about the role of science in society.

advantage in genetically modified crops, such as the US, Argentina, Canada and countries that want to restrict its trade, such as the EU (Anderson, et al., 2004, p.18).¹⁰ There are also concerns about possible monopolistic tendencies and market failures in the diffusion of knowledge to producers in developing countries. A couple of multinational companies in developed countries have dominated the research, development and marketing of the new biotechnology. This raises questions about the economic risks in relation to the existence of monopoly powers and the potential risks that a profitability driven sector would pose to environment and food safety. However, the extent of public research in developing countries is gaining momentum too. Public institutions also engage in partnerships with the private sector in identifying, transferring and adapting technology from developed countries. For instance, India, Brazil and China have been investing heavily in public-driven biotechnology research and technology transfer, making the new knowledge directly available to the farmers of developing countries.¹¹

As for the potential benefits of the new biotechnology to small farms in developing countries there are competing views too. The agro-pessimists argue that the new technology is capital biased and designed for large-scale farmers in the North. Small-scale farmers in the South lack the managerial skills to benefit from the new technology (Ashley and Maxwell, 2001, p. 407). They also claim that small farms may not afford the package of new technology inputs (Kydd, 2002, p. 3). On the other hand, the protagonists of small farms take a progressive approach, and argue

¹⁰ In 2003, the US, Canada and Argentina opened a case in the WTO against the EU's de facto moratorium against the commercial exploitation of GM products in Europe.

¹¹ This also enables a better public accountability in terms of the ethical aspects of the research and its application.

for the promotion of pro-small-farm crop science and appropriate GM technology. For instance, Lipton argues that genetically modified plants can improve stagnating yields in food staples especially in areas of water scarcity. Provided that necessary institutional innovations are in place in relation to both combining public and private research and improving health and environmental regulations, he argues that the new technology can offer effective ways of dealing with poverty and malnutrition (Lipton, 2001, p.824). It should also be noted that as the technology progresses and the related knowledge accumulates, the marginal cost of research and development activities will fall. This will reduce entry costs and stimulate competition which is likely to benefit farmers in developing countries.

6.5.3 Globalizing markets

Global trade offers an opportunity to developing countries that are capable of finding new export markets and re-adjusting food policies at the domestic level. Turkey, for instance, could improve its export performance in high-value commodities, such as horticulture products, that have an absolute comparative advantage in high-income OECD markets. Increasing exports would by-pass the income elasticity obstacle in domestic markets – as developed countries provide a high-income consumer-base for high value commodities. It would also increase the employment elasticity of the agricultural sector, since these commodities often require labour intensive production on small-scale farms (Eastwood and Lipton, 2004, p. 43). On the other hand, the fact that world prices for low-value staple foods are lower than domestic prices, provides an opportunity to import staple foods cheaply. This would first reduce the pressure on land devoted to staple food production and thus ease the transition to higher value cropping patterns. Second, given that both rural and urban populations with low-

income spend the bulk of their income for basic food, lowering food prices would raise their real income, which in turn stimulates the domestic demand for higher value agricultural commodities too. Therefore, a simultaneous process of increasing exports in high-value crops while gradually liberalising imports – exclusively for low-value food crops – would encourage the process of transformation within agriculture.

Emerging developing country coalitions pursuing a fairer global trade regime is an important step which would enable developing countries to benefit from trade with fewer obstacles. In the Doha Round, the Group of 20 (G20),¹² the new alliance of developing countries including Brazil, India and China emerged in the run up to Cancun in September 2003 and raised hopes of shifting asymmetries in the balance of power within the WTO. The group successfully stood up against the US and the EU that had always imposed multilateral trade rules in agriculture. In particular, they proposed radical cuts in high levels of trade distorting domestic support and export subsidies used by developed countries (Narlikar and Tussie, 2004, p. 952). Since the collapse of negotiations in Cancun, the Doha ‘development round’ has encountered increasingly active engagement of developing countries forming issue-based coalitions such as the G-33, G15 and Like-Minded Group (LMG). Hence, although there are conflicting interests between and within different groups, the emergence of developing country coalitions in multilateral trade negotiations is a major step towards achieving fair and more democratically governed global trade in the benefit of developing countries.¹³

¹² The group is also known as G22 or G20+.

¹³ On the concept of fairness in international trade negotiations, see (Narlikar, 2006).

On the marketing side of the sector, increasing demand, especially from developed countries, for high quality differentiated products offers lucrative market opportunities for developing countries. Niche markets such as cut flowers, organic vegetables and fruits have been growing rapidly over the recent decades. Developing countries enjoy advantages because of their lower labour costs and greater ecological variations allowing for a broad range of product differentiation. Yet the level of competition and quality standards in these new markets are tougher than those in traditional ones. Being competitive requires technological improvements reducing costs, good transportation infrastructure, post-harvest storage and processing facilities, good coordination among producers (especially among small farms), a conducive economic climate for domestic and foreign investment, efficient market links and good marketing strategies (Diao and Hazell, 2004, p. 6).

Multinational retailers and supermarkets now play an increasingly important role in providing new market opportunities for small farmers. Boosted by both domestic and foreign direct investments, they dominate middle-income urban markets in both developed and developing countries.¹⁴ Their increased sourcing of fresh fruits and vegetables has brought about new dimensions to both the marketing and production of food crops. In many developing countries, they have moved the structure of traditional wholesale markets towards specialised wholesalers and contract farming that requires stringent quality, quantity and delivery-timing standards (Reardon, et al., 2003, p. 1145). This, on the one hand, raises questions about whether small-scale farmers are capable of meeting these technical and organisational requirements

¹⁴ In Latin America, the share of supermarkets in food retail is between 50 -60 per cent, in South Asia, more than 60 per cent in East Asia, rapidly increasing in countries like China, South Africa (Reardon, et al., 2003, p. 1142).

(Ashley and Maxwell, 2001, p. 407).¹⁵ It also brings up some ‘power asymmetry’ issues in relation to the ‘buying power’ of these large retailers, increasingly demanding more services from their contractors at lower prices, which may also exclude small farms from participating in these new marketing chains (Gibbon, 2003, p. 615).¹⁶ Nevertheless, governments can play an important role to overcome these problems by facilitating linkages between producers, wholesalers and supermarkets, supporting farmer associations and cooperatives, investing in logistics, extension, market information and financial services (Shepherd, 2005, pp. 13-15).

6.5.4 ‘Market-friendly’ land reform

In dealing with the ‘ascribed’ inequality in land distribution, promoting equality through direct political intervention by carrying out a redistributive land reform is no longer considered to be a feasible policy option. However, there have been some alternative examples of land reform in developing countries, such as Brazil, Colombia, Nicaragua and El Salvador (de Janvry, et al., 2001b, pp. 290-3). In these types of market-led land reform, the government acts as an initiator and a mediator between landowners and peasant organizations. It provides peasants with access to long-term credit markets (or facilitates their relations with financial institutions), which allow them to buy land. On the other hand, landlords are encouraged to sell their land at market prices. As the land transaction takes place between the willing seller and the willing buyer, this type of ‘de-politicized’ intervention is often called ‘market friendly’ land reform. Both its effectiveness in alleviating inequality and its

¹⁵ Shepherd (2005, pp. 6-11) analyses supermarket-farm linkages and some of the difficulties that small farms face in developing countries such as India, the Philippines, Malaysia, Vietnam, China and others.

¹⁶ Lang (2003, pp. 558-559) also analyses the concentration of power in food supply chains and retailers.

contributions to growth are highly contested;¹⁷ however, it offers a policy alternative in cases of high historical inequality.

6.5.5 New social democracy: a better framework for rural transformation

Benefiting from these new opportunities requires enlarging public capacities and creating new institutions. Providing modern telecommunication and transportation facilities, offering widespread higher education to rural populations require large-scale investment and institutional capacity. Similarly, research in new biotechnology is expensive and necessitates public-private partnerships. The potential contribution of international trade depends on the country's position in multilateral and bilateral trade negotiations, and more importantly, its institutional and organizational capacity at the domestic level. Increasingly stringent quality and delivery standards set by multinational retailers require an advanced organizational infrastructure in developing countries where the sector is dominated by large number of small-scale producers. Given the fact that the existing institutions have not been effective, and that 'structural adjustment' has further weakened their policy capacities (Kydd, 2002, p. 1; Held, 2005, p. 7), there is an urgent need for developing a new policy framework that would address the question of rural transformation in the era of globalization.

The new ideology of social democratic globalization is a promising alternative to this end. It argues for sound macro-economic policies conducive for economic growth, while being at the same time conducive for addressing inequality and social justice.

¹⁷ For a technical analysis and the practical implementations of 'market-friendly' land reform, see (Deininger, 2001); for its criticism, see (Borras, 2003).

It advocates strengthening the public sector and for a greater state capacity to play a major role in strategizing investments and implementing differentiated development policies. It argues for sequencing market integration by taking into account power and access asymmetries, while acknowledging that it is indispensable for welfare growth (Held, 2005, p. 30). It envisages a fair trade environment for developing countries democratically supervised by a multilateral regime. The new social democracy framework prioritizes reducing poverty and investing in human development (Held, 2005, p. 35).

The cosmopolitan school advocating social democratic globalization positions itself against the neo-liberalism that has dominated the world economic order over the last two decades. This new ideology recognises the opportunities that the global economy is offering through increasing productivity, growth and technological diffusion. It argues for more egalitarian distribution of the benefits while strongly emphasising eradication of poverty and the importance of environmental sustainability (Held, 2005, p. 5). The cosmopolitans champion traditional social democratic concepts and values such as 'the rule of law, political equality, democratic politics, social justice and social solidarity' while recognizing the need for reconstructing their meanings in line with the new realities and challenges of the global political economy (Held, 2005, p. 26-28).¹⁸

The social democracy school claims to offer a new framework that would encourage economic growth while addressing equality and social justice, poverty and sustainable environment. At the local level, the state is envisaged as enlarging its

¹⁸ For a similar interpretation of modern social democracy in Turkey, see (Dervis, et al., 2006).

policy capacity, and playing a major role in strategizing investments and implementing development policies. Investing in human and social capital should be prioritized. At the global level, the new social democracy framework envisages a successful and fair conclusion to WTO negotiations, debt cancellation and increased financial aid for poor countries. It also advocates developing a fair regime for transnational migration. What the new social democracy school is calling for, therefore, is a globalization process that serves human development.

The new social democracy framework proposed by the cosmopolitan school has been criticized on different grounds. First, its analysis of the crises of globalization and its critique of the 'Washington Consensus' has been attacked for being faulty and illusionary (Wolf, 2005, p. 40).¹⁹ Second, its conception of the role of the state was argued to be 'statist' at the local level (Desai, 2005, p. 69),²⁰ and utopian at the international level, on the grounds that it underestimates the sovereignty of the nation state (Thompson, 2005, p. 53). Third, its emphasis on equality and social justice was of particular concern for its implied treatment of the two concepts on an equal basis (Scruton, 2005, pp. 48-49).²¹ Finally, it has been severely criticized for lacking adequate sophistication in relation to proposing politically and practically feasible solutions to tackle the problems it raises (Slaughter and Hale, 2005, p. 127). As such, there is a clear need for the new social democracy school to go beyond its diagnostic

¹⁹ The neo-liberal school argues that the principles of the 'Washington Consensus' were widely accepted conventions in macroeconomic management, which has not weakened the institutional capacity of developing countries. According to this view, perceiving the consensus as an evil was an imaginary construction in the minds of the cosmopolitans (Wolf, 2005, pp. 39-40).

²⁰ This criticism reflects the old perception of social democracy as an ideology incapable of decentralizing the control of the state (Desai, 2005, pp. 68-69).

²¹ In this context, it has been argued that inequality is natural and it does not necessarily mean injustice. Following the same line of argument, trying to curb inequality in the name of social justice is claimed to be counterproductive (Scruton, 2005, pp. 48-50).

vision and develop creative, effective and efficient solutions to deal with the challenges it identifies.

This thesis argues that a realistic and pragmatic policy approach could be incorporated into the new ideology of social democracy in a mutually beneficial way. On the one hand, the social democracy school needs to have a theoretical and an operational framework addressing rural and agricultural development. Since the major global crises the school identifies – namely achieving the Millennium Development Goals (MDGs), realizing a fair trade environment through multilateral trade negotiations under the WTO regime and environmental sustainability – are directly related to the rural space in general, and the agricultural sector in particular. On the other hand, the agro-realist approach arguing for the process of rural transformation requires a favourable policy framework like the one advocated by the social democratic globalization school. Therefore, this thesis argues that if this incorporation between the favourable ideology and a realistic policy framework for rural and agricultural development is achieved, the rural transformation can be envisaged as a feasible objective for today's developing countries.

This incorporation provides a redefinition of the role of the state which would play a significant role in stimulating the rural transformation. A new social democratic state should have an extended policy capacity, but not as a dominant player creating market distortions but as a developmental state strategizing investments and focusing on human development.²² It should also be able to develop institutional capacity to

²² For similar arguments assigning the state a strategic role in industrial development which goes beyond ensuring macro-economic stability, while acknowledging that market mechanisms and private entrepreneurship should still be the engine of economic development, see (Rodrik, 2004).

invest in large scale higher education programmes, provide advanced transportation, communication and energy infrastructure, invest in technological research and knowledge diffusion, encourage the development of organizational (coordination) capacities among small farms, provide institutional support for them to explore new markets, and also politically intervene to address the problem of 'ascribed' inequality to promote social justice in rural areas. Hence, replacing the existing 'Washington Consensus' with a renewed doctrine of social democracy combined with a realistic policy approach to rural and agricultural development would be a major step in the process of rural transformation.

6.6 Conclusion

The process of rural transformation has taken different historical paths in countries where it has been completed. For those societies that have achieved the stage of being 'developed,' the question ceases to exist; however, it still remains to be completed for the vast majority of societies that are still considered to be 'developing.' Since the first example of England till the last ones of South Korea and Taiwan, all examples of completed rural transformations were distinct from each other, reflecting the political economic circumstances of the eras in which they took place. Having analysed the reasons why there has not been any completed rural transformation over the past three decades, the big question that this thesis has attempted to illuminate is whether such a successful transformation could take place in today's developing countries living in the era of economic globalization.

The approach that has been developed here argues that the rural transformation can move in the direction of completion if/when there is a simultaneous transformation

both *from agriculture* – a continuous decline in the actual size of rural labour force – and *within agriculture* – rapid increase in land productivity. Investing in human development, especially through higher education, in rural areas, providing new communication and transportation infrastructure, focusing on the domestic and export-oriented services sector and promoting freer international labour mobility can stimulate the labour transition from the agricultural sector. Investing in research and development in new biotechnology, promoting the transition to high-value cropping patterns through taking more active part in global trade, attracting big retailers and supermarkets bringing investment, technological innovations and new market opportunities are some of the most important policy options that can stimulate the transformation within agriculture.

The thesis has argued for a new policy framework of social democracy in the context of developing countries with large proportions of labour force working in the agricultural sector. It involves a radical change in the role of the state. Through enhancing its institutional capacity at the macro level and its operational efficiency at the local level, the state should play a major role in rural economic development while at the same time addressing inequality and social justice. It needs to strategize investments and implement differentiated development policies that are flexible enough to cope with immense variations at the local level. The new approach should also adopt itself to the irreversible trend towards further global economic integration, which will eventually include the agricultural sector. Yet it should stand for a fair trade system, democratically supervised by a multilateral regime.

The thesis argues that the new ideology of social democracy combined with realism can provide a hope for developing countries to complete their rural transformations in the age of globalization. If it takes place, this would mean that billions of rural labourers would be saved from the underproductive agricultural activities they have been trapped into, so that they can utilize their human potentials more effectively. It would also mean that the vast majority of the world's poor who engage in small farming can be included in the process of economic globalization. A combination of social democratic development framework and a realistic policy approach to rural and agricultural development which is committed to human development, technological innovation and infrastructural investment; which is institutionally equipped to take advantage of new opportunities arising from economic globalization, while at the same time being socially egalitarian, environmentally conscious and politically democratic can facilitate the transformation process from being developing to becoming developed.

BIBLIOGRAPHY

Abadan-Unat, Nermin. (1993) 'Impact of External Migration on Rural Turkey', in Stirling, Paul (ed.), *Culture and Economy*, Cambridgeshire: The Eothen Press.

Akçay, Adnan. (1985) 'Traditional Large Land Ownership and Its Transformation in Two Southeast Anatolian Villages', unpublished Master Thesis, Department of Sociology, METU, Ankara.

Akçay, Adnan. (1999) 'Toprak Ağalığından Kapitalist İşletmeciliğe Türkiye Tarımında Büyük Topraklı İşletmeler (From Landlordism to Capitalist Farming, Large Land Ownership in Turkish Agriculture)', in Baydar, Oya (ed.), *75 Yılda Köylerden Şehirlere (From Villages to Towns in 75 Years)*, Istanbul: Tarih Vakfı Yayınları.

Akder, Halis. (2007) 'Policy formation in the process of implementing agricultural reform in Turkey,' *International Journal of Agricultural Resources and Governance*, Vol. 6, Nos. 4-5.

Akder, H., Kasnakoglu, H., and Buckwell, A. (1990) 'Turkish Agriculture and European Community Policies, Issues, Strategies and Institutional Adaptation', Report of a study for the United Nations Development Programme, executed by the United Nations Conference on Trade and Development.

Akder, H., Kasnakoglu, H., and Cakmak, E. H. (2000) 'Turkey: Sources of Growth in Turkish Agriculture', Turkey: Country Economic Memorandum, Structural Reforms for Sustainable Growth, Background Papers, World Bank, Washington, D.C.

Aksit, Bahattin. (1967) *Az gelişmiş Kapitalizm ve Köylere Girişi (Underdeveloped Capitalism and its Entry to Villages)*, Ankara: METU Student's Union Publication.

Aksit, Bahattin. (1982) 'Kırsal Dönüşüm Araştırmalarında Bazı Yöntem Sorunları' (Some Methodology Issues in Researches on Rural Transformation'), *ODTÜ İnsan Bilimleri Dergisi*, No. 1, pp. 173-180.

Aksit, Bahattin. (1985) *Köy Kasaba ve Kentlerde Toplumsal Değişme (Social Change in Villages, Towns and Cities)*, Ankara: Turhan Kitabevi.

Aksit, Bahattin. (1988) 'Kırsal Dönüşüm ve Köy Araştırmaları 1960-1980' ('Rural Transformation and Village Studies 1960-1980'), in Pamuk, Sevkettin and Zafer Toprak (eds.), *Türkiye'de Tarımsal Yapılar 1923-2000 (Agricultural Structures in Turkey 1923-2000)*, Ankara: Yurt Yayınevi.

Aksit, Bahattin. (1993) 'Studies in Rural Transformation in Turkey 1950-1990,' in Stirling, Paul (ed.), *Culture and Economy*, Cambridgeshire: The Eothen Press.

Aksit, Bahattin, and Akçay, Adnan. (1997) 'Socio-cultural Aspects of Irrigation Practices in South-eastern Turkey', *International Journal of Water Resources Development*, Vol.13, No. 4, pp. 523-540.

Aksit, B., Mutlu, K., Nalbantoglu, H. U., Akçay, A., and Sen, M. (1996) 'Population Movements in the South-eastern Anatolia: Some Findings of an Empirical Research in 1993', *New Perspectives on Turkey*, No. 14, pp. 53-74.

- Aksoy, Ataman M. (2005) 'Global Agricultural Trade Policies', in Aksoy, M. A. and B. C. John., *Global Agriculture Trade and Developing Countries*, World Bank, Washington D.C.
- Anderson, K., Damania, R., and Jackson, L.A. (2004) 'Trade, Standards, and the Political Economy of Genetically Modified Food', Policy Research Paper 3395, World Bank, Washington DC.
- Appadurai, Arjun. (1989) 'Small-scale Techniques and Large-scale Objectives', in Bardhan, Pranab K. (ed.), *Conversations between Economists and Anthropologists: Methodological Issues in Measuring Economic Change in Rural India*, New Delhi: Oxford University Press.
- Araus, J.L., Slafer, G.A., Romagosa, I., and Molist, M. (2001) 'Focus: Estimated Wheat Yields During the Emergence of Agriculture Based on the Carbon Isotope Discrimination of Grains: Evidence from a 10th Millennium BP Site on the Euphrates,' *Journal of Archaeological Science*, Volume 28, Number 4, pp. 341-350.
- Ashley, Caroline. (2006) 'How can governments boost the local economic impacts of tourism?', SNV and ODI, available at <http://www.odi.org.uk/propoortourism/publications/reports/snv_odi_toolbox.pdf> (accessed December 2006).
- Ashley, Caroline, Maxwell, Simon. (2001) 'Rethinking Rural Development,' *Development Policy Review*, Vol. 19, No. 4, pp. 395-425.
- Aston, T. H., Philpin C.H.E. (eds.) (1985) *The Brenner Debate: Agrarian Class Structure and Economic Development in Pre-industrial Europe*, Cambridge: Cambridge University Press.
- Avcioğlu, Dogan. (1969) *Türkiye'nin Düzeni: Dün, Bugün, Yarın (The Order of Turkey: Yesterday, Today, Tomorrow)*, Vol. 1, Ankara: Bilgi Yayınevi.
- Ayata, Sencer. (1982) 'Differentiation and Capital Accumulation: Case Studies of the Carpet and Metal Industry in Kayseri (Turkey)', Unpublished PhD thesis, Canterbury: University of Kent.
- Aydin, Zulkuf. (1986) *Underdevelopment and Rural Structures in Southeastern Turkey: the Household Economy of Giris and Kalhana*, London: Ithaca press.
- Aydin, Zulkuf. (1987) 'Turkish Agrarian Debate: New Arguments and Old Scores', *New Perspectives on Turkey*, Vol. 1, No.1, pp. 81-108.
- Aydınlık. (19.09.2004) 'Bismil Sinan Köylüleri ağalıktan kurtulmaya kararlı (The peasants of Bismil Sinan are determined to get rid of landlordism)'.
- Aydınlık. (12.12.2004) 'Köylü direndi, ağanın adamları kaçtı! (The peasant resists, the landlord's men run away!)'.
- Baffes, John. (2004) 'Cotton: Market Setting, Trade Policies, and Issues', World Bank Policy Research Working Paper, Publication No: 3218, Washington D.C.
- Baffes, John and Gohou, Gaston. (2005) 'The Co-Movement between Cotton and Polyester Prices', World Bank Policy Research Working Paper, Publication No. 3534. Washington, D.C.
- Bardhan, Pranab (ed.) (1989) *The Economic Theory of Agrarian Institutions*, Oxford: Clarendon Press.

Bardhan, Pranab, and Udry, Christopher. (1999) *Development Microeconomics*, Oxford: Oxford University Press.

Barkan, Omer Lutfi. (1980) 'Malikâne-divânî Sistemi (Malikâne-divânî System),' in Barkan, Omer Lutfi, *Türkiye'de Toprak Meselesi (The Land Issue in Turkey)*, Istanbul: Gözlem Yayınları, pp. 151-208.

Barkey, H.J., and Fuller, G.E. (1998) *Turkey's Kurdish Question*, Lanham, MD: Rowman & Littlefield.

Barrett, C.B., Reardon, T., and Webb, P. (2001) 'Nonfarm Income Diversification and Household Livelihood Strategies in Rural Africa: Concepts, Dynamics, and Policy Implications', *Food Policy*, Vol. 26, pp. 215-331.

Bernstein, Henry. (1979) 'African Peasantries: A Theoretical Framework', *The Journal of Peasant Studies*, Vol. 6, No. 4, pp. 421-43.

Bernstein, Henry. (1988) 'Capitalism and Petty-bourgeois Production: Class Relations and Division of Labour', *The Journal of Peasant Studies*, Vol. 15, No. 2, pp. 258-71.

Boratav, Korkut. (1969a) *Gelir Dağılımı (Income Distribution)*, Gerçek Yayınevi.

Boratav, Korkut. (1969b) 'Tarımda Feodal Üretim İlişkileri, Feodal Kalıntılar ve Basit Meta Üretimi (Feudal Relations of Production, Feudal Remnants and Simple Commodity Production in Agriculture)', *Emek*, No.6, July.

Boratav, Korkut. (1970a) 'Tarımda Üretim İlişkileri Üzerine ('On the Relations of Production of Production in Agriculture'), *Proleter Devrimci Aydınlik*, No. 1/15, January.

Boratav, Korkut. (1970b) 'Gecikmiş Bir Uyarı ('A Belated Warning'), *Proleter Devrimci Aydınlik*, No. 20, June.

Boratav, Korkut. (1980) *Tarımsal Yapılar ve Kapitalizm (Agricultural Structures and Capitalism)*, Ankara: Ankara Üniversitesi Siyasal Bilgiler Fakültesi Yayınları.

Boratav, Korkut. (1999) '1963 ve 1970 Tarım Sayımlarına Göre Türkiye'de Toprak Dağılımı' ('Land Distribution in Turkey According to 1963 and 1970 Censuses of Agriculture'), in Baydar, Oya (ed.), *75 Yılda Köylerden Şehirlere (From Villages to Towns in 75 Years)*, Istanbul: Tarih Vakfı Yayınları, pp. 86-90.

Borras, Saturnino Jr. (2003) 'Questioning Market-led Agrarian Reform: Experience from Brazil, Colombia, and South Africa', *Journal of Agrarian Change*, Vol. 3, No. 3, pp. 367-394.

Byres, Terence. (1991) 'The Agrarian Question and Different Forms of Capitalist Agrarian Transitions: An Essay with Reference to Asia', in Breman, J. and S. Mundle (eds.), *Rural Transformation in Asia*, Delhi: Oxford University Press.

Cakmak, E., and Akder, H. (2005) *DTÖ ve AB'deki Gelişmeler Işığında 21. Yüzyılda Türkiye Tarımı (In the Light of Developments at the WTO and the EU Turkish Agriculture in the 21st century)*, Turkish Industrialists' and Businessmen's Association (TUSIAD), Publication No:T/2005-06/397, Istanbul.

Cakmak, E. H., and Kasnakoglu, H. (2002) 'Interactions between Turkey and European Union in Agriculture: Analysis of Turkey's Membership to EU', Agricultural Economics Research Institute, Ankara.

Cakmak, E. H., Kasnakoglu, H., and Akder, H. (1999) *Tarım Politikalarında Yeni Denge Arayışları ve Türkiye (Search for New Balances in Agricultural Policies: Case of Turkey)*, Turkish Industrialists' and Businessmen's Association (TUSIAD), Publication No T/99-12/275, Istanbul.

Chambers, Robert. (1993) *Challenging the Professions: Frontiers for Rural Development*, London: Intermediate Technology.

Chambers, Robert. (1997) *Whose Reality Counts?: Putting the First Last*, London: Intermediate Technology.

Chayanov, Aleksandr. V. (1966) *The Theory of Peasant Economy*, Thorner, D., and B. Kerblay and R.E. F. Smith (eds.), Homewood, Illinois: Irwin.

Cinar, M., and Silier, O. (1979) *Türkiye Tarımında İşletmeler Arası Farklılaşma (Differentiation between Businesses in Turkish Agriculture)*, Istanbul: Boğaziçi Üniversitesi.

Codron, J., Bouhsina, Z., Fort, F., Coudel, E., and Puech, A. (2004) 'Supermarkets in Low-income Mediterranean Countries: Impacts on Horticulture Systems,' *Development Policy Review*, Vol. 22, No. 5, pp. 587-602.

Coleman, J., and Thigpen, E. (1990) 'An Econometric Model of the World Cotton and Non-Cellulosic Fiber Markets' Washington, D.C.: World Bank.

Collins, Randall. (1981) 'Micro-translation as a Theory Building Strategy', in Cicourel, A. V., and K. Knorr-Cetina (eds.), *Advances in Social Theory and Methodology: Toward an Integration of Micro- and Macro- Sociologies*, Boston : Routledge & Kegan Paul.

Culhaoglu, Metin. (1970) 'Bir Kör Gidiş' ('Going Blindly'), *Emek*, No. 26, April.

Cumhuriyet. (17.09.2004) 'Köylünün ağaya isyanı bitmiyor' ('The peasant's rebellion against the landlord does not end').

Cumhuriyet. (02.10.2004) 'Köylüler ağa'ya karşı birleşti' ('Peasants united against the landlord').

Cumhuriyet. (09.12.2004) 'İsyankar köylüler' tutuklandı' ('Rebellious peasants were taken into custody').

Cumhuriyet. (01.03.2005) 'Başkaldıran köylüler hakim önündeydiler' ('Rebellious peasants were before the judge').

Deininger, Klaus. (2001) 'Negotiated Land Reform as One Way of Land Access: Experiences from Colombia, Brazil, and South Africa,' in de Janvry, A., and G. Gordillo, J. Platteau, E. Sadoulet (eds.), *Access to Land, Rural Poverty and Public Action*, Oxford: Oxford University Press.

Deininger, Klaus, and Olinto, Pedro. (2000) 'Asset Distribution, Inequality, and Growth', Policy Research Working Paper 2375, The World Bank, Washington, D.C.

de Janvry, A., Key, N., and Sadoulet, E. (1997) 'Agricultural and Rural Development Policy in Latin America: New Directions and New Challenges,' Working Paper No.815, Department of Agricultural and Resource Economics Division of Agriculture and Natural Resources, University of California at Berkeley.

de Janvry, Alain, et al. (2001a) 'Access to Land and Land Policy Reforms', in de Janvry, A., and G. Gordillo, J. Platteu, E. Sadoulet (eds.), *Access to Land, Rural Poverty and Public Action*, Oxford : Oxford University Press.

de Janvry, A., Sadoulet, E., and Wolford, W. (2001b) 'The Changing Role of the States in Latin American Land Reforms,' in de Janvry, A., and G. Gordillo, J. Platteu, E. Sadoulet (eds.), *Access to Land, Rural Poverty and Public Action*, Oxford : Oxford University Press.

Dervis, K., Asker, S., and Isik, Y. (2006) *Krizden Çıkış ve Çağdaş Sosyal Demokrasi (Way out of the Crisis and Modern Social Democracy)*, Istanbul: Doğan Kitapçılık.

Desai, Meghnad. (2005) 'Social Democracy as World Panacea? A comment on David Held', in Held, David, et al. (eds.), *Debating Globalization*, Cambridge, UK ; Malden, MA: Polity.

Desta, Melaku G. (2002) *The Law of International Trade in Agricultural Products*, The Hague: Kluwer Law International.

Diamond, Jared M. (1999) *Guns, Germs and Steel: A Short History of Everybody for the Last 13,000 Years*, London: Vintage.

Diao, Xinshen, and Hazell, Peter. (2004) 'Exploring Market Opportunities for African Smallholders', International Food Policy Research Institute, Vision 2020 Conference Brief, prepared for the conference on 'Assuring Food and Nutrition Security in Africa by 2020: Prioritizing Actions, Strengthening Actors, and Facilitating Partnerships,' held in Kampala, Uganda, April 1-3, 2004)

Diao, X., Hazell, P., Resnick, D., Thurlow, J., Rockmore, M. and Abrenilla, M. (2005) 'The Role of Agriculture in Sub-Saharan Africa: Conventional Wisdom, Current Debate and Country Studies,' Draft paper, International Food Policy Research Institute, Washington, D.C.

Eastwood, R., and Lipton, M. (2000) 'Pro-poor Growth and Pro-growth Poverty Reduction: Meaning, Evidence, and Policy Implementations', *Asian Development Review*, Vol. 18, No. 2, pp. 22-58.

Eastwood, R., Lipton, M., and Newell, A. (2004) 'Farm size', Paper prepared for Volume III of the Handbook of Agricultural Economics, available at <<http://www.ids.ac.uk/ids/aboutids/Seminarseries2005/Eastwood.pdf>> (accessed April 2006).

Eisa, H. M., Barghout, S., Gillham, F., and Al-Saffy, M.T. (1994) 'Cotton Production Prospects for the Decade to 2005: a Global Overview', World Bank Technical Paper, Publication No: 231, Washington, D.C..

Ellis, Frank. (2000) *Rural Livelihoods and Diversity in Developing Countries*, Oxford: Oxford University Press.

Ellis, Frank, and Biggs, Stephen. (2001) 'Evolving Themes in Rural Development 1950s-2000s', *Development Policy Review*, Vol. 19, No. 4, pp. 437-448.

Erdost, Muzaffer. (1969a) *Türkiye Sosyalizmi ve Sosyalizm (Socialism in Turkey and Socialism)*, Ankara: Sol Yayınları.

Erdost, Muzaffer. (1969b) 'Türkiye'de Feodalizm Var Mı?' ('Is there Feudalism in Turkey?'), *Türk Solu*, No.80.

Erdost, Muzaffer. (1969c) 'Türkiye'de Feodalizmin Bugünkü Durumu Üzerine Bir Taslak' ('A Sketch on the Position of Feudalism in Turkey Today'), *Aydınlık Sosyalist Dergi*, No.5.

Erdost, Muzaffer. (1969d) 'Türkiye Tarımında Hakim Üretim İlişkisi Üzerine' ('On the Dominant Relation of Production In Turkish Agriculture'), *Aydınlık Sosyalist Dergi*, No.13., November.

Erdost, Muzaffer. (1970) 'Yeni Oportunizmin Eleştirisi' ('Critique of the New Opportunism'), *Aydınlık Sosyalist Dergi*, No.19., May.

Erdost, Muzaffer. (1984) *Kapitalizm ve Tarım (Capitalism and Agriculture)*, Ankara: Onur Yayınları.

European Commission. (2003) 'Agricultural Situation in Candidate Countries: Country report Turkey', October.

European Commission. (2004) 'Issues Arising from Turkey's Membership Perspective', Commission Staff Working Document, SEC (2004) 1202.

Fan, S., and Chan-Kang, C. (2003) 'Is small beautiful? Farm size, productivity and poverty in Asian agriculture,' Plenary paper prepared for the 25th International Conference of Agricultural Economists, Durban, South Africa, July 17.

Fields, Gary S. (2004) 'Dualism in the Labor Market: a Perspective on the Lewis Model After Half a Century,' *The Manchester School*, Vol. 72 No. 6, pp. 724–735.

Food and Agricultural Policy Research Institute (FABRI). (2002) 'The Doha Round of the World Trade Organisation: Appraising Further Liberalisation of Agricultural Markets', Working Paper, 02-WP 317, November 2002.

Food and Agriculture Organisation of the United Nations (FAO). (2003) *The State of Food Insecurity in the World 2003*, Food and Agriculture Organization of the United Nations, Rome, Italy, available at <<ftp://ftp.fao.org/docrep/fao/006/j0083e/j0083e00.pdf>> (accessed May 2004).

Food and Agriculture Organisation of the United Nations (FAO), 2004, 'The State of Agricultural Commodity Markets', Rome.

Food and Agriculture Organisation of the United Nations (FAO). (2005) *FAO Country Profiles and Mapping Information System (Turkey)*, available at <<http://www.fao.org/countryprofiles/maps.asp?iso3=TUR&lang=en>> (accessed February 2005).

Food and Agriculture Organisation of the United Nations (FAO). (2007) *FAO Statistical Year Book 2004*, available at <http://www.fao.org/statistics/yearbook/vol_1_1/index.asp> (accessed February 2007).

Food and Agriculture Organisation of the United Nations Statistics Division (FAOSTAT). (2006) *FAOSTAT database*, available at <<http://faostat.fao.org>>.

GAP Administration. (2005) The Southeastern Anatolia Project Official Website, available at <www.gap.gov.tr> (accessed January 2005).

Gaskell, George, et al. (2006) 'Transatlantic Tensions over GM Crops and Food', in Gaskell, G. and Martin W. Bauer (eds.), *Genemics and Society: Legal, Ethical and Social Dimensions*, London, Sterling, VA: Earthscan.

Gazanfer, Sebahattin. (2004) 'Overview of the Turkish Cotton Industry', in Cotton: Review of the World Situation, International Cotton Advisory Committee, Vol. 57, No. 5, May-June 2004.

Gibbon, Peter. (2003) 'Value-chain Governance, Public Regulation and Entry Barriers in the Global Fresh Fruit and Vegetable Chain into the EU', *Development Policy Review*, Vol. 21. Nos. 5-6. pp. 615-625.

Gillham, Fred E.M., et al. (1995) 'Cotton Production Prospects for the Next Decade', World Bank Technical Paper, No. 287, Washington, D.C.

Goreux, Louis. (2004) 'Cotton after Cancun', OECD Draft Discussion Paper, available at <<http://www.oecd.org/dataoecd/38/48/30751318.pdf>> (accessed August 2006)

Grethe, Harald. (2004) 'Effects of Including Agricultural Products in the Customs Union between Turkey and the EU: A Partial Equilibrium Analysis for Turkey', Ph.D. Dissertation, Georg-August-Universität Göttingen, Peter Lang, Frankfurt, available at <<http://webdoc.sub.gwdg.de/diss/2004/grethe/index.html>> (accessed August 2006).

Hakarlerler, H., and Yagmur, B. (2003) 'Pamuğun Gübrenmesi' ('Cotton Fertilising'), in Aegean University Cotton Education Seminar 2003, Izmir.

Hann, C. M. (1985) 'Rural Transformation on the East Black Sea Coast of Turkey: A note on Keyder', *The Journal of Peasant Studies*, Vol. 12, No 4, pp. 101-11.

Hann, C.M. (1990) *Tea and the Domestication of the Turkish State*, Cambridgeshire: The Eothen Press.

Hann, C.M. (1993) 'The Sexual Division of Labour in Lazistan', in Stirling, Paul (ed.), *Culture and Economy*, Cambridgeshire: The Eothen Press.

Harriss, John. (ed.) (1982) *Rural Development: Theories of Peasant Economy and Agrarian Change*, London: Hutchinson University Library.

Harriss, John. (1989) 'Knowing About Rural Economic Change: Problems Arising From a Comparison of the Results of 'Macro' and 'Micro' Research', in Bardhan, Pranab K. (ed.), *Conversations between Economists and Anthropologists: Methodological Issues in Measuring Economic Change in Rural India*, New Delhi: Oxford University Press.

Harriss, John. (1991) 'Agriculture/Non-agriculture Linkages and the Diversification of Rural Economic Activity: A South Indian Case Study', in Breman, J. and S. Mundle (eds.), *Rural Transformation in Asia*, Delhi: Oxford University Press.

Hazell, Peter, and Diao, Xinshen. (2005) 'The Role of Agriculture and Small Farms in Economic Development', Prepared for 'the Future of Small Farms' Workshop, Wye, UK June 26-29, 2005.

Held, David. (2005) 'Globalization: the Dangers and the Answers', in Held, David, et al. (eds.), *Debating Globalization*, Cambridge, UK; Malden, MA: Polity.

Incirlioglu, Emine O. (1993) 'Marriage, Gender Relations and rural Transformation in Central Anatolia', in Stirling, Paul (ed.), *Culture and Economy*, Cambridgeshire: The Eothen Press.

International Cotton Advisory Committee (ICAC). (2002) 'Production and Trade Policies Affecting the Cotton Industry', Washington, D.C.

International Cotton Advisory Committee (ICAC). (2003) 'World Cotton Trade 2003/04', September 2003, Washington, D.C.

International Cotton Advisory Committee (ICAC). (2004) 'Major Changes in Supply and Demand Estimates', Cotton This Month, August 2004, Washington D.C.

International Fund for Agricultural Development (IFAD). (2001) Rural Poverty Report 2001: The Challenge of Ending Rural Poverty, available at <<http://www.ifad.org/poverty/>> (accessed May 2004).

International Monetary Fund (IMF). (2006) World Economic Indicators, available at <www.imf.org> (accessed May 2006).

Islam, R. (1986) 'Non-agricultural Employment in Rural Asia: Issues and Evidence', in Shand, R.T. (ed.), *Off-farm Employment in Development in Rural Asia*, ANU, National Centre for Development Studies, Canberra.

Issawi, Charles. (1980) *The Economic History of Turkey 1800-1914*, Chicago: The University of Chicago Press.

Johnston, Bruce F., and Mellor, John W. (1961) 'The Role of Agriculture in Economic Development', *The American Economic Review*, Vol. 51, No. 4, pp. 556-593.

Jwaideh, Wadie. (1960) 'The Kurdish Nationalist Movement: Its Origins and Development', Ph.D. Thesis, Syracuse University, Michigan (Printed version by University Microfilms International, 1982).

Jwaideh, Wadie. (1999) *Kürt Milliyetçiliğinin Tarihi: Kökenleri ve Gelişimi (The Kurdish Nationalist Movement: Its Origins and Development)*, Istanbul: İletişim Yayınları.

Kafaoglu, A., B. (2001) *Tarım: Bolluk İçinde Yokluk (Agriculture: Scarcity in Abundance)*, Istanbul: Analiz Basım Yayım.

Karadayi, Hasan B. (2003) 'Türkiye'de Pamuk Tohumculuğu ve Tescil Edilen Çeşitler' ('Cotton Seed Production in Turkey and Certificated Varieties'), in Aegean University Cotton Education Seminar 2003, İzmir.

Karaomerlioglu, M. Asim. (2000) 'Elite Perceptions of Land Reform in Early Republican Turkey', *The Journal of Peasant Studies*, Vol. 27, No. 3, pp. 115-141.

Karapinar, Baris. (2005) 'Land Inequality in Rural Southeastern Turkey: Rethinking Agricultural Development,' *New Perspectives on Turkey*, No. 32, pp. 165-197.

Karapinar, Baris. (2007) 'Rural transformation in Turkey 1980-2004: case studies from three regions', *International Journal of Agricultural Resources and Governance*, Vol. 6, Nos. 4-5.

Karpat, K.H. (1960) 'Social Effects of Farm Mechanization in Turkish Villages', *Social Research*, C. 27, 1960, s. 83-103.

Kasnakoglu, Haluk. (1992) 'Producer and Consumer Subsidies in Agriculture: The Case of Turkey in Relation to OECD Countries', *Metu Studies in Development*, Vol. 19, No. 3, pp. 317-336.

Kautsky, Karl. (1988) *The Agrarian Question*, translated by Pete Burgess, London: Zwan Publications.

Kay, Cristobal. (1974) 'Comparative Development of the European Manorial System and the Latin American Hacienda System', *The Journal of Peasant Studies*, Vol. 2, No. 1, pp. 69-98.

Kazgan, Gulen. (1999) '1980'lerde Türk Tarımında Yapısal Değişme' ('Structural Change in Turkish Agriculture in 1980s'), in Baydar, Oya (ed), *75 Yılda Köylerden Şehirlere (From Villages to Towns in 75 Years)*, Istanbul: Tarih Vakfı Yayınları.

Keyder, Caglar. (1983) 'Paths of Rural Transformation in Turkey', *The Journal of Peasant Studies*, Vol. 2, No.1, pp. 34-49.

Keyder, Caglar. (1993) *Ulusal Kalkınmacılığın İflası (The Bankruptcy of National Developmentalism)*, Istanbul: Metis Yayıncılık.

Keyder, Caglar, and Pamuk, Sevet, (1984-1985) 'Çiftçiyi Topraklandırma Kanunu Üzerine Tezler' ('Theses on Law for Providing Land to Farmers'), *Yapıt*, No.7.

Kiray, M., and Hinderink, J. (1970) *Social stratification as an obstacle to development; a study of four Turkish villages*, Praeger Publishers, NewYork.

Kohring, M., et al. (2006) 'Whom to Trust with Genes on the Menu', in Gaskell, G. and Martin W. Bauer (eds.), *Genemics and Society: Legal, Ethical and Social Dimensions*, London, Sterling, VA: Earthscan.

Kolars, F. John. (1967) 'Types of Rural Development', in Shorter, Frederic C. (ed.), *Four Studies on the Economic Development of Turkey*, London: Frank Cass& Co. Ltd.

Koymen, Oya, and Ozturkcan, Meric. (1999) 'Türkiye'de Toprak Dağılımı Üstüne Bazı Notlar' ('Some Notes on Land Distribution in Turkey'), in Baydar, Oya (ed.), *75 Yılda Köylerden. Şehirlere (From Villages to Towns in 75 Years)*, Istanbul: Tarih Vakfı Yayınları, pp. 75-96.

Köylü. (September-October 2004) 'Köylüler ağalığa karşı yürüyor' ('Villagers are marching against landlordism').

Kudat, Ayse, and Bayram, Mumtaz. (2000) 'Sanliurfa-Harran Plains On-Farm and Village Development Project', in Kudat, A., and S. Peabody, C. Keyder (eds.), *Social assessment and agricultural reform in Central Asia and Turkey*, Washington, DC: World Bank.

Kutlay, M. (1970) 'Geri Kalmış Kapitalizm'('Backward Capitalism'), *Emek*, Vol. 3, No. 2, July.

Kutlay, M. (1970) 'Türkiye'de Geriliğin Gelişmesi'('The Development of Backwardness in Turkey'), *Emek*, Vol. 3, No. 3, August.

- Kuznets, Simon. (1966) *Modern Economic Growth*, New Haven: Yale University Press.
- Kydd, Jonathan. (2002) 'Agriculture and Rural Livelihoods: Is Globalisation Opening or Blocking Paths out of Rural Poverty?', Overseas Development Institute, Agricultural Research and Extension Network Paper, No: 121.
- Kydd, Jonathan, and Dorward, Andrew. (2001) 'The Washington Consensus on Poor Country Agriculture: Analysis, Prescription and Institutional Gaps', *Development Policy Review*, Vol. 19, No. 4, pp. 467-478.
- Lang, Tim. (2003) 'Food Industrialisation and Food Power: Implications for Food Governance,' *Development Policy Review*. Vol. 21, Nos. 5-6, pp. 555-568.
- Lenin, Vladimir I. (1977) *The Development of Capitalism in Russia: the Process of the Formation of a Home Market for Large-scale Industry*, Moscow: Progress Publishers.
- Lewis, W. Arthur. (1954) 'Economic Development with Unlimited Supplies of Labour,' *The Manchester School*, Vol. 22, No. 2, pp. 139-191.
- Lipton, Michael. (1977) *Why Poor People Stay Poor: A study of Urban Bias in World Development*, London: Temple Smith.
- Lipton, Michael. (2001) 'Reviving Global Poverty Reduction: What Role for Genetically Modified Crops', *Journal of International Development*, Vol. 13, pp. 823 -846.
- Lipton, Michael. (2005) 'The family farm in a globalizing world: The role of crop science in alleviating poverty,' International Food Policy Research Institute, 2020 Discussion Paper, Publication No. 40, Washington, D.C..
- Lusk, Jayson L., and Coble, Keith H. (2005) 'Risk Perceptions, Risk Preferences, and Acceptance of Risky Food', *American Journal of Agricultural Economics*, Vol. 87, No:2, pp. 393-405.
- Marguilies, Ronnie. (1985) *Small Family Farming and Transformation of Turkish Agriculture: 1950-65*, Unpublished PhD Thesis, University of East Anglia, UK.
- McDowall, David. (2000) *A Modern History of the Kurds*, London: I.B. Tauris.
- Milliyet. (17.09.2004) 'Ağaya karşı traktör zinciri' ('Tractor chain against the landlord').
- Ministry of Agricultural and Rural Affairs (MARA). (2004) Official website, available at <www.tarim.gov.tr> (accessed June 2004).
- MST (Movimento Dos Trabalhadores Rurais Sem Terra) Brazil's Landless Rural Workers' Movement. (2005) Official website, available at < www.mstbrazil.org> (accessed January 2005).
- Mutlu, Servet. (1996) 'The Southeastern Anatolia Project (GAP) of Turkey: its Context, Objectives and Prospects', *Orient*, Vol. 37, pp.59-86.
- Nagayets, Oksana. (2005) 'Small farms: Current Status and Key Trends,' Information Brief Prepared for the Future of Small Farms Research Workshop, Wye College, June 26-29, 2005.

Narlikar, Amrita. (2006) 'Fairness in International Trade Negotiations: Developing Countries in the GATT and WTO', *World Economy*, Vol. 29, No. 8, pp. 1005-1029.

Narlikar, A., and Tussie, D. (2004) 'The G20 at the Cancun Ministerial: Developing Countries and their Evolving Coalitions in the WTO', *World Economy*, Vol. 27, No. 7: 947-966.

Organization for Economic Cooperation and Development (OECD). (2006a) Producer and Consumer Support Estimate (PSE-CSE) Database 1986-2005, available at <<http://www.oecd.org>> (accessed June 2006)

Organization for Economic Cooperation and Development (OECD). (2006b) Dataset: Micro Trade Indicators (by category of goods, HS), available at <<http://www.oecd.org>> (accessed in July 2006).

Organization for Economic Cooperation and Development (OECD). (2006c) OECD in Figures 2005: Agricultural Production and Trade, available at <<http://www.oecd.org>> (accessed in July 2006).

Organization for Economic Cooperation and Development (OECD). (2004) Producer and Consumer Support Estimate (PSE-CSE) Database 1986-2003, available at <<http://www.oecd.org>>

Organization for Economic Cooperation and Development (OECD). (2000) Tariffs and Trade: OECD query and reporting system, available at <<http://www.oecd.org/dataoecd/20/27/2431187.pdf>> (accessed June 2006).

Organization for Economic Cooperation and Development (OECD). (1994) 'National Policies and Agricultural Trade: Country Study Turkey', Paris

Onis, Ziya. (2000) 'The Turkish Economy at the Turn of a New Century', in Abramowitz, Morton (ed.), *Turkey's Transformation and American Policy*, New York: Century Foundation Press.

Ozkaya, T., Oyan O., and Isin, F. (2001) 'Türkiye'de Tarımsal Destekleme Politikaları Dünü-Bugünü-Geleceği ('Agricultural Subsidy Policies in Turkey: The Past, Present, and the Future'), Ankara.

Ozsoy, U., et. al. (2003) 'Ege Bölgesinde Uzun Yıllara Ait İklimsel Faktörlerin Pamuk Verimine Etkisi' ('The Impact of Long Term Climatic Factors on Cotton Yield in the Aegean Region'), in Aegean University Cotton Education Seminar 2003, Izmir.

Patnaik, Utsa. (1979) 'Neo-populism and Marxism: The Chayanovian View of the Agrarian Question and its Fundamental Fallacy', *The Journal of Peasant Studies*, Vol. 6, No. 4. pp. 375-420.

Patnaik, Utsa. (2003) 'Global Capitalism, Deflation and Agrarian Crisis in Developing Countries,' *Journal of Agrarian Change*, Vol. 3, Nos. 1-2, pp.33-66.

Poonyth, D., Sarris, A., Sharma R., and Shui S. (2004) 'The Impact of Domestic and Trade Policies on the World Cotton Market', FAO Commodity and Trade Policy Research Working Paper, No.8. available at <<http://www.fao.org/docrep/007/j2731e/j2731e00.htm>> (accessed June 2005).

Radikal. (17.09.2004) 'Ağaya isyan' sürüyor' ('Rebellion against 'the landlord' continues').

Reardon Tom. (2004) 'Rural Non-farm Income in Developing Countries', Background Paper Prepared for the FAO for the Non-farm Workshop at the World Bank in 1999, available at <http://econ.worldbank.org/files/26753_treardon.phd> (accessed March 2004).

Reardon, T., Timmer, C. P., Barrett, C. B., and Berdegue, J. (2003) 'The Rise of Supermarkets in Africa, Asia, and Latin America,' *American Journal of Agricultural Economics*, Vol. 85, No. 5, pp. 1140-1146.

Rodrik, Dani. (2002) 'Feasible Globalizations', National Bureau of Economic Research Working Paper, Publication No: 9129, available at <<http://www.nber.org/papers/w9129.pdf>> (accessed June 2006).

Rodrik, Dani. (2004) 'Industrial Policy for the Twenty-First Century', Harvard University John F. Kennedy School of Government Faculty Research Working Paper, Publication No:RWP04-047, available at <<http://ksghome.harvard.edu/~drodrik/UNIDOSep.pdf>> (accessed August 2006).

Ruspini, Elisabetta. (2002) *Introduction to Longitudinal Research*, London: Routledge.

Sabah. (24.08.2004) 'Kibar Feyzo Filmi Bismil'de Gerçek Oldu' ('Kibar Feyzo Gets Real in Bismil').

Sadoulet, E., Murgai, R., and de Janvry, A. (2001) 'Access to Land via Land Rental Markets', in de Janvry, A., and G. Gordillo, J. Platteau, E. Sadoulet (eds.), *Access to Land, Rural Poverty, and Public Action*, New York: Oxford University Press.

Saith, Ashwani. (1991) 'Asian Rural Industrialisation Context, Features, Strategies', in Breman, J. and S. Mundle (eds.), *Rural Transformation in Asia*, Delhi: Oxford University Press.

Schmitz, Troy. (1999) 'Turkish Trade Policy and the Efficiency of Turkish Cotton Markets,' Selected Paper, Subject Code: 12, AAEA Annual Meeting, Nashville 1999.

Schultz, Theodore. W. (1964) *Transforming Traditional Agriculture*, New Haven CT: Yale University Press.

Scruton, Roger. (2005) 'Delusions of Internationalism', in Held, David, et al. (eds.), *Debating Globalization*, Cambridge, UK; Malden, MA: Polity.

Seddon, David, and Margulies,. (1984) 'The Politics of the Agrarian Question in Turkey: Review of a Debate', *The Journal of Peasant Studies*, Vol. 11 No 3, pp.28-60.

Selik, Mehmet. (1969) 'Türkiye'de Sosyalizm Tartışmaları: Milli Demokratik Devrim Fetişizmi I, II, III' ('Debates on Socialism in Turkey: The National Democratic Revolution Fetishism I, II, III'), *Emek*, Nos. 3, 4 and 5, June.

Sen, Amartya K. (1964) 'Size of Holdings and Productivity', *Economic Weekly*, Vol. 16, Nos. 5,6,7, pp. 323-327.

Sen, Amartya K. (1966) 'Peasants and Dualism with or without Surplus Labour,' *Journal of Political Economy*, Vol. 74, pp. 425-450.

Shankland, David. (1993) 'Alevi and Sunni in Rural Anatolia: Diverse Paths of Change', in Stirling, Paul (ed.), *Culture and Economy*, Cambridgeshire: The Eothen Press.

Shepherd, Andrew W. (2005) 'The implications of supermarket development for horticultural farmers and traditional marketing systems in Asia', Revised version of paper first presented to the FAO/AFMA/FAMA Regional Workshop on the Growth of Supermarkets as Retailers of Fresh Produce, Kuala Lumpur, October 4-7, 2004.

Sirman, A. Nukhet. (1988) 'Peasant and Family Farms: the Positions of Households in Cotton Production in a Village of Western Turkey', unpublished Ph.D. dissertation, University of London.

Sirman-Eralp, Nukhet. (1988) 'Pamuk Üretiminde Aile İşletmeleri (Family Enterprises in Cotton Production)', in Pamuk, Sevket and Zafer Toprak (eds.), *Türkiye'de Tarımsal Yapılar (1923-2000) (Agricultural Structures in Turkey)*, Ankara: Yurt Yayınevi.

Sirtioglu, Ibrahim. (2004) 'Turkey retail food sector report 2004', USDA FAS, GAIN report, TU#4005, 3/8/2004.

Slaughter, A., and Hale, T.N. (2005) 'A Covenant to Make Global Governance Work', in Held, David et al. (eds.), *Debating Globalization*, Cambridge, UK; Malden, MA: Polity.

Staatz, John M., and Eicher, Carl K. (1998) 'Agricultural Development Ideas in Historical Perspective,' in Eicher, Carl and J. Staatz (eds.), *International Agricultural Development*, Baltimore; London: The John Hopkins University Press.

State Institute of Statistics (SIS). (1937) Census of Population 1935, Publication No: 75, Vol. 18 (Province of Diyarbakır), Istanbul.

State Institute of Statistics (SIS). (1956) General Agricultural Census 1950, Publication No: 371, Ankara.

State Institute of Statistics (SIS). (1960) Census of Population 1960 (primary results), Publication No: 408. Istanbul.

State Institute of Statistics (SIS). (1961b) Census of Population 1955, Publication No: 412, Ankara.

State Institute of Statistics (SIS). (1961a) Census of Population 1950, Publication No: 410, Istanbul.

State Institute of Statistics (SIS). (1963) Zirai İstatistik Özetleri 1941-1962 (The Summary of Agricultural Statistics 1941-1962), Publication No: 447, Ankara.

State Institute of Statistics (SIS). (1977) Census of Population 1970, Publication No: 756, Ankara

State Institute of Statistics (SIS). (1979) General Agricultural Census 1970, Publication No: 904, Ankara.

State Institute of Statistics (SIS). (1982) General Agricultural Census 1980: Village Information, Ankara.

State Institute of Statistics (SIS). (1984b) General Agricultural Census 1980, Publication No: 1028, Ankara.

State Institute of Statistics (SIS). (1984a) Census of Population 1980, Publication No: 1072, Ankara.

State Institute of Statistics (SIS). (1988) Census of Population 1985. Publication No: 1237, Ankara.

State Institute of Statistics (SIS). (1991) Census of Population 1990, Publication No:1457, Ankara.

State Institute of Statistics (SIS). (1994) General Agricultural Census 1991, Publication No:1691, Ankara.

State Institute of Statistics (SIS). (1995) Tarımsal Ürünler 1991: Miktar, Fiyat, Değer (Agricultural Products 1991: Quantity, Price, Value), Publication No: 1729, Ankara.

State Institute of Statistics (SIS). (1999) Tarım İstatistikleri Özeti 1979-1998 (The Summary of Agricultural Statistics 1979-1998), Publication No: 2275, Ankara.

State Institute of Statistics (SIS). (2002) Tarım İstatistikleri Özeti 1982-2001 (The Summary of Agricultural Statistics 1982-2001), Ankara.

State Institute of Statistics (SIS). (2003c) Census of Population 2000 (CD version). Ankara.

State Institute of Statistics (SIS). (2003b) General Agricultural Census 2001 (Provisional Results), available at <www.die.gov.tr> (accessed December 2003).

State Institute of Statistics (SIS). (2003a) Tarımsal Yapı 2001: Üretim, Fiyat, Değer (Agricultural Structure 2001: Production, Price, Value), Publication No: 2758, Ankara.

State Institute of Statistics (SIS). (2004) General Agricultural Census 2001: Village Information, Ankara.

State Institute of Statistics (SIS). (2005) Tarımsal Yapı 2003 (Agricultural Structure 2003), Publication No: 2949, Ankara.

State Institute of Statistics (SIS). (2006a) Household Labour Force Survey Results, available at <<http://www.tuik.gov.tr/VeriBilgi.do>> (accessed June 2006).

State Institute of Statistics (SIS). (2006b) Income Distribution Statistics, available at <http://www.tuik.gov.tr/PreIstatistikTablo.do?istab_id=293> (accessed June 2006).

State Institute of Statistics (SIS). (2006c) Tarım İstatistikleri Özeti 1985-2004 (The Summary of Agricultural Statistics 1985-2004), Publication No: 2999 (CD version).

State Planning Organization (SPO). (2003) Temel Ekonomik Göstergeler: Ekim 2003 (Main Economic Indicators: October 2003), Ankara.

State Planning Organisation (SPO). (2006) Economic and Social Indicators 1950-2004, available at <<http://ekutup.dpt.gov.tr/ekonomi/gosterge/tr>> (accessed March 2006).

Stiglitz, Joseph E. (1989) 'Rational Peasants, Efficient Institutions, and a Theory of Rural Organization: Methodological remarks for Development Economics', in Bardhan, Pranab (ed.), *The Economic Theory of Agrarian Institutions*, Oxford: Clarendon Press.

Stirling, Paul. (1965) *Turkish Village*, London: Weidenfeld and Nicolson.

Stirling, Paul. (1974) 'Cause, Knowledge and Change; Turkish Village Revisited', in Stirling, Paul (ed.), *Culture and Economy*, Cambridgeshire: The Eothen Press.

Stirling, Paul. (1993) 'Introduction: Growth and Changes', in Stirling, Paul (ed.), *Culture and Economy*, Cambridgeshire: The Eothen Press.

Stirling, Paul. (2006) '45 Years in Turkish Village 1949-1994' (web archive), in CSAC's Ethnographics Gallery of University of Kent at Canterbury, available at <<http://lucy.ukc.ac.uk/Tvillage>> (accessed June 2006).

Tarakli, Duran. (1976) *Çiftçiyi Topraklandırma Kanunu ve Sonuçları (Güney-Doğu Anadolu Uygulama ve Örneklem Sonuçlarıyla) (The Law Providing Land to Farmers and Its Outcomes)*. Ankara: ODTÜ.

Taris, Toon. (2000) *A Premier in Longitudinal Data Analysis*, London: Sage.

Tezel, Yahya. (1982) *Cumhuriyet Döneminin İktisat Tarihi (1923-1950) (The Economic History of the Republican Era 1923-1950)*, Ankara: Yurt Yayınları.

Thompson, Graham. (2005) 'The Limits of Globalization', in Held, David, et al. (eds.), *Debating Globalization*, Cambridge, UK; Malden, MA: Polity.

Tignor, Robert. (2004) 'Unlimited Supply of Labor,' *The Manchester School*, Vol. 72, No. 6, pp. 691-711.

Timmer, Peter C. (1998) 'The Agricultural Transformation,' in Eicher, Carl and J. Staatz (eds.), *International Agricultural Development*, Baltimore; London: The John Hopkins University Press.

Tokarick, Stephen. (2003) 'Measuring the Impact of Distortions in Agricultural Trade in Partial and General Equilibrium', IMF Working Paper, WP/03/110.

Tokin, Ismail Husrev. (1990) *Türkiye Köy İktisadiyatı (Turkey's Village Economy)*, Istanbul: İletişim Yayıncılık (First publication 1934).

Turkish State Meteorology Service (TSMS). (1996) *Climate of Turkey 1995*, Ankara.

Turkish State Meteorology Service (TSMS). (2000) *The Climatologic Analysis of Precipitation, Temperature and Moisture in Turkey*, Publication No. 2000/07, Ankara: DMI publications.

Turkish State Meteorology Service (TSMS). (2004) Information on Climate in Turkey, available at <<http://www.meteor.gov.tr/2006/english/eng-climateofturkey.aspx>> (accessed November 2004).

Turkish Treasury. (2006) Foreign Direct Investment Statistics, available at <http://www.hazine.gov.tr/stat/yabser_ist.htm> (accessed in September 2006).

Tuzel, H. I., and Ul, A. M. (2003) 'Pamuk Sulaması' ('Cotton Watering'), in Aegean University Cotton Education Seminar 2003, Izmir.

United Nations Population Division (UNPD). (2005) 'Population Challenges and Development Goals', United Nations Department of Economic and Social Affairs, New York.

United Nations Population Division (UNPD). (2006) World Population Prospects: The 2004 Revision Database and World Urbanization Prospects: The 2003 Revision Database, available at <<http://esa.un.org/unpp/>> (accessed March 2006).

Van Berkum, Siemen. (2005). 'Agriculture and Food Industry Structure,' in Burrell, Alison and A. Oskam (eds.), *Turkey in the European Union: Implications for Agriculture, Food and Structural Policy*, Oxfordshire; Cambridge: Cabi Publishing.

White, Paul. (2000). *Primitive Rebels or Revolutionary Modernizers*, London; New York: Zed Books.

Wolf, Martin. (2005) 'The Case for Optimism: A Response', in Held, David, et al. (eds.), *Debating Globalization*, Cambridge, UK; Malden, MA: Polity.

Wolford, Wendy. (2003) 'Producing Community: The MST and Land Reform Settlements in Brazil', *Journal of Agrarian Change*, Vol. 3, No. 5, pp. 500-520.

World Bank. (2001) 'Project Appraisal Document on a Proposed Loan in the Amount of US\$ 600 million to the Republic of Turkey for an Agricultural Reform Implementation Project/Loan', Report No: 21177-TU.

World Bank. (2005a) World Development Indicators 2005, available at <www.worldbank.org> (accessed March 2006).

World Bank. (2005b) 'Turkey Joint Poverty Assessment Report', Volume I: Main Report, Report No. 29619-TU.

World Trade Organisation (WTO). (2005) International Trade Statistics 2005: Selected Long-term Trends, available at <http://www.wto.org/english/res_e/statis_e/its2005_e/its05_longterm_e.htm> (accessed April 2006).

World Trade Organisation (WTO). (2006a) International Trade Statistics 2006: Trade by Sector, available at <http://www.wto.org/english/res_e/statis_e/its2006_e/its06_bysector_e.htm> (accessed April 2006).

World Trade Organisation (WTO). (2006b) International Trade Statistics 2006: Agricultural Products (selected economies 1990-2004), available at <http://www.wto.org/english/res_e/statis_e/its2006_e/its06_bysector_e.htm> (accessed in June 2006).

Yalcin-Heckmann, Lale. (1991) *Tribe and Kinship among the Kurds*, Frankfurt/M, Peter Lang.

Yalman, Nur. (1977) 'On Land Disputes in Eastern Turkey', in Tikku, G.L. (ed.), *Islam and its Cultural Divergence*, Ann Arbor.

Yasa, Ibrahim. (1965) *Yirmi Beş Yıl Sonra Hasanoğlan (Twenty-Five Years Later Hasanoglan)*, Ankara: Ankara Üniversitesi Basımevi.

Yemisci, Tugrul. (2003) 'Dünyada ve Türkiye'de Pamuk Durumu' ('The State of Cotton in the World and Turkey'), in Aegean University Cotton Education Seminar 2003, Izmir.